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THE EFFECTS OF THE MILL WOODS LAND BANK ON LAND AND HOUSING PRICES IN EDMONTON

by

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A THESIS

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled THE EFFECTS OF THE MILL WOODS LAND BANK ON LAND AND HOUSING PRICES IN EDMONTON submitted by JEAN-PIERRE R. LEBOURGEOIS in partial fulfilment of the requirements for the degree of MASTER OF ARTS.

ABSTRACT

The City of Edmonton, in 1969, undertook a large scale land banking project in the southeastern district known as Mill Woods. The primary purpose of the project, as it was first formulated, was to reduce housing prices in general in Edmonton, by injecting a large amount of relatively cheap land into the market and, thus, forcing the price of land down. In land economic theory, however, it is recognized that a public land bank can be successful in attaining this particular objective (the price objective) only if the land supply for housing is being restricted through the use of oligopolistic or monopolistic powers. Furthermore, several economic, marketing, and planning conditions have to be met before a publicly-owned land bank can effectively reduce housing and land prices. These conditions were examined to assess the degree to which the Mill Woods land bank was capable of affecting housing prices in Edmonton. It was concluded that oligopolistic and monopolistic powers have not been a major force in the Edmonton land development industry. In addition, it was found that the public authorities who were responsible for the Mill Woods project were unfamiliar with the theoretical constructions and economic conditions that are necessary for a land bank to succeed in its price objective. This, in turn, resulted in a lack of clearly defined goals, objectives and policy guidelines, leading to marketing and pricing policies that were different from those needed to operate a land banking

project on a long-run, break-even basis. The marketing and pricing strategies also reflected a shift in emphasis from the project's primary economic objective to a secondary social objective that resulted in a disproportionate amount of low-income housing being built in Mill Woods.

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I. CHAPTER ONE

INTRODUCTION

The concept of public "land banking" is not new, but can be traced to the "social idealism" which sparked the housing, social and land reform movements of the late 19th century. In particular, one of the leading utopian thinkers of the time, Ebenezer Howard, identified his garden city, a revolutionary concept of urban growth and organization, with "the economic, sanitary and social advantages of common ownership of land" (Howard, 1946, p.106). This may be viewed as one of the direct sources of what we know today as "land banking".

Howard's ideas spread throughout Europe, the United States and other parts of the world. The notion of public acquisition of land in advance of the anticipated need of a community became a reality in Stockholm, Sweden, in 1904, when the city council approved the purchase of the 1500 acre Enskede estate on the grounds "that it made just as good sense for government as for business to plan for growth" (Passow, 1970, p.180). Communities in Finland and the Netherlands were quick to follow Sweden's example. Since then, some form of land banking has occurred in most Western European countries, as well as in the United States, Puerto Rico, Australia, Israel and Canada.

Differences in social, political and economic institutions among countries have created variations in land banking programs, with respect to size of land inventories, organizational structures, and acquisition and disposition techniques (Flechner, 1974). The bases for land banking programs also vary. Public involvement in land ownership in Western Europe can be attributed largely to crowded conditions, land shortages and war damages, whereas in Canada the intial land banks were a result of the takeover of tax-foreclosed land after the collapse of the western landboom in 1913. In more recent times, high land prices have been the prime force behind Canadian and Puerto Rican land banking programs (Flechner, 1974).

A. Land Banking Definition

The term "land banking" has been used to describe a wide range of government activities in which land has been publicly acquired and held for future use, though Flechner groups them into two broad categories - general land banking and project or special land banking. "Project land banking is first distinguished from general land banking insofar as it is concerned with a specific functional area. Activities that have been placed in this category include holding land for urban renewal, low and moderate income housing, open space, industrial development, and advanced land acquisition for public facilities" (Flechner, 1974, p.3). General land banking, on the other hand, he defines as "the acquisition

of developed and undeveloped land, holding of land, and disposition of land for all types of land uses - public and private - without prior specification of the use for particular sites, by a public body whose deliberate purposes are control of metropolitan growth patterns and/or regulation of metropolitan land prices and/or capturing of capital gains and/or regulation of land use" (Flechner, 1974, p.7).

Another means of categorizing land banking projects is offered by Watson (1974). He identifies three types, the first of which is the special purpose land bank which includes public land trusts, agricultural land banks, project assemblies and urban renewal assemblies. Greenbelts, recreational open space, "reserve land banks" and public utilities land banks form the second group under the heading of Urban Land Conversion: Passive Agents. These two, together, are comparable to Flechner's project or special land banks. The third category, in Watson's classification, is Urban Land Conversion: Active Agents which is made up of new towns and planned unit land banks. Included with new towns, which are principally a European phenomenon, are the planned unit developments (PUD's) common to the United States. The two differ in that new towns are usually developed under the control of a single public authority as self-sufficient growth centers with distinct administrative and political structures, whereas the planned unit developments are generally smaller in scale with the active

agent being private firms. In Canada, new towns have little relevance to urban land conversion, though several private 'new communities' including Castle Downs, Kanata, Erin Mills, Bramalea and Flemingdon Park can be referred to as planned unit developments.

Watson's term, "planned unit land bank", is the most precise title for the land banks at Mill Woods, Saskatoon, Red Deer and other Canadian cities (Watson, 1974, p.26)..The planned unit land bank "is a public intervention in the process of conversion of land to urban use. It involves the acquisition and assembly of land to enable the planning of large contiguous areas as integrated units" (Watson, 1974, p.27). The intentions of the planned unit land bank, as stated by Watson, are therefore similar to those presented in Flechner's definition of general land banking.

Another definition that is consistent with Watson's and Flechner's is provided by Hamilton. He states that "public land banking, as the term is presently used in Canada, refers to the process of public acquisition of land with development potential in advance of the anticipated need of a community, for immediate and future use for residential and other purposes" (Hamilton, 1974, p.1). He also identifies three general objectives from the literature on land banking.

1. Price or economic objectives: the argument is advanced that land prices can be effectively reduced through public ownership of land banks.

2. Planning objective: control over the nature, timing and location of development.
3. Profit objective: the allocation of profits from land development to the community (Hamilton, 1974, p.11-12).[1]

It is the price objective which is the initial and prime force behind Canadian land banking projects. These land banks are generally formed, first and foremost, to reduce land prices throughout the greater area in which the programs operate, with the planning objective following from the initial price objective. The profit objective, on the other hand, has always been controversial because of ideological arguments that arise when the public sector seeks to generate revenue through land banking. It has also been viewed as contradictory to the price objective and has been defended only as an objective in accumulating capital reserves for the purchase of further land banks.

In summary, whether Canadian land banking projects are called 'general land banks', 'planned unit land banks' or 'public land banks', they are common in that their emphasis is on the acquisition and holding of land by a public authority. The subsequent disposition of the land is for both public and private use, with the primary intent of the project being a general reduction of land prices throughout the greater area in which a land bank operates. It is this

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[1]Bureau of Municipal Research (1973), Flechner (1974), Carr and Smith (1975), Hamilton and Baxter (1977), and McFadyen (1978) also identify these three objectives in the land banking literature.

price objective which will form the center of discussion for this thesis.

B. Mill Woods - Historical Review

Acquisition

Mill Woods is one of six suburbs (Outline Plan Areas) currently being developed within the boundaries of the city of Edmonton (Figures 1 and 2). Located in the city's southeast corner, it is unique in that the majority of land within its planning area was assembled specifically to restore a direct public role in the Edmonton land market.[2] Concern over the 'rising costs of services and land' prompted the provincial government to offer its assistance in the financing and acquisition of the Mill Woods site, under the Alberta Housing Act. During the summer of 1970 solicitors working under contract for the Alberta Housing Corporation quietly negotiated the purchase of 4,425 (68 per cent) of the 6,500 acres in what was to be the Mill Woods planning area (Figure 3). The total cost of land acquired was 9,000,000 dollars, and the purchase prices ranged from as low as 600 dollars per acre to as high as 4,500 dollars

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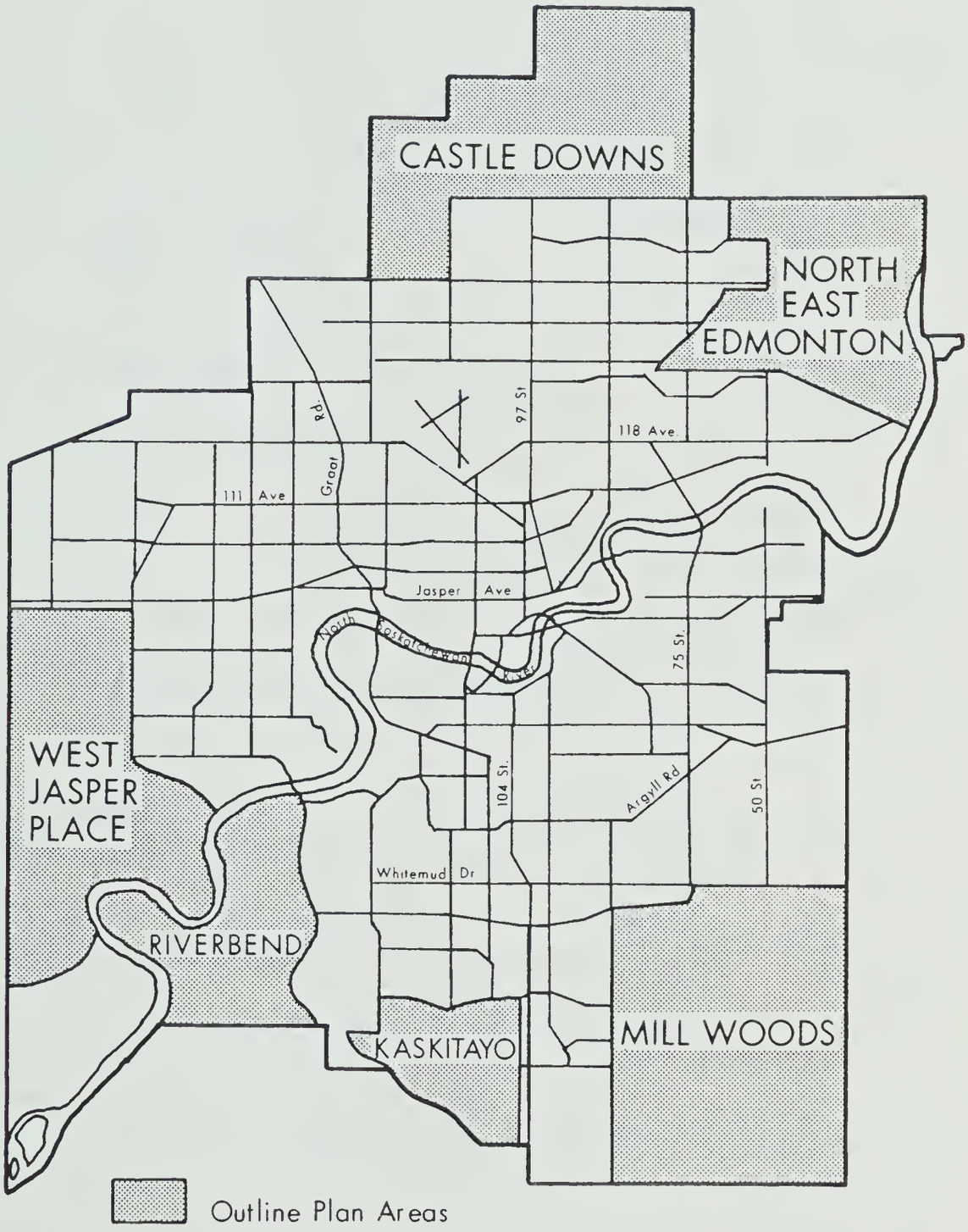
[2]In the past, direct public involvement in the Edmonton land market was the result of the collapse of the land boom in 1913. Between 1918 and 1920, 70,000 lots were in default. To recover lost revenue the City requested that the provincial government amend the Tax Act so that defaulted land could be sold at auction. It was not until 1920 that tax delinquent lots became the legal property of the City if they were not reclaimed or sold at auction. In the case of Mill Woods the City intentionally purchased the land. For a historical review of government involvement in the Edmonton land market see Dale, 1969.

FIGURE 1

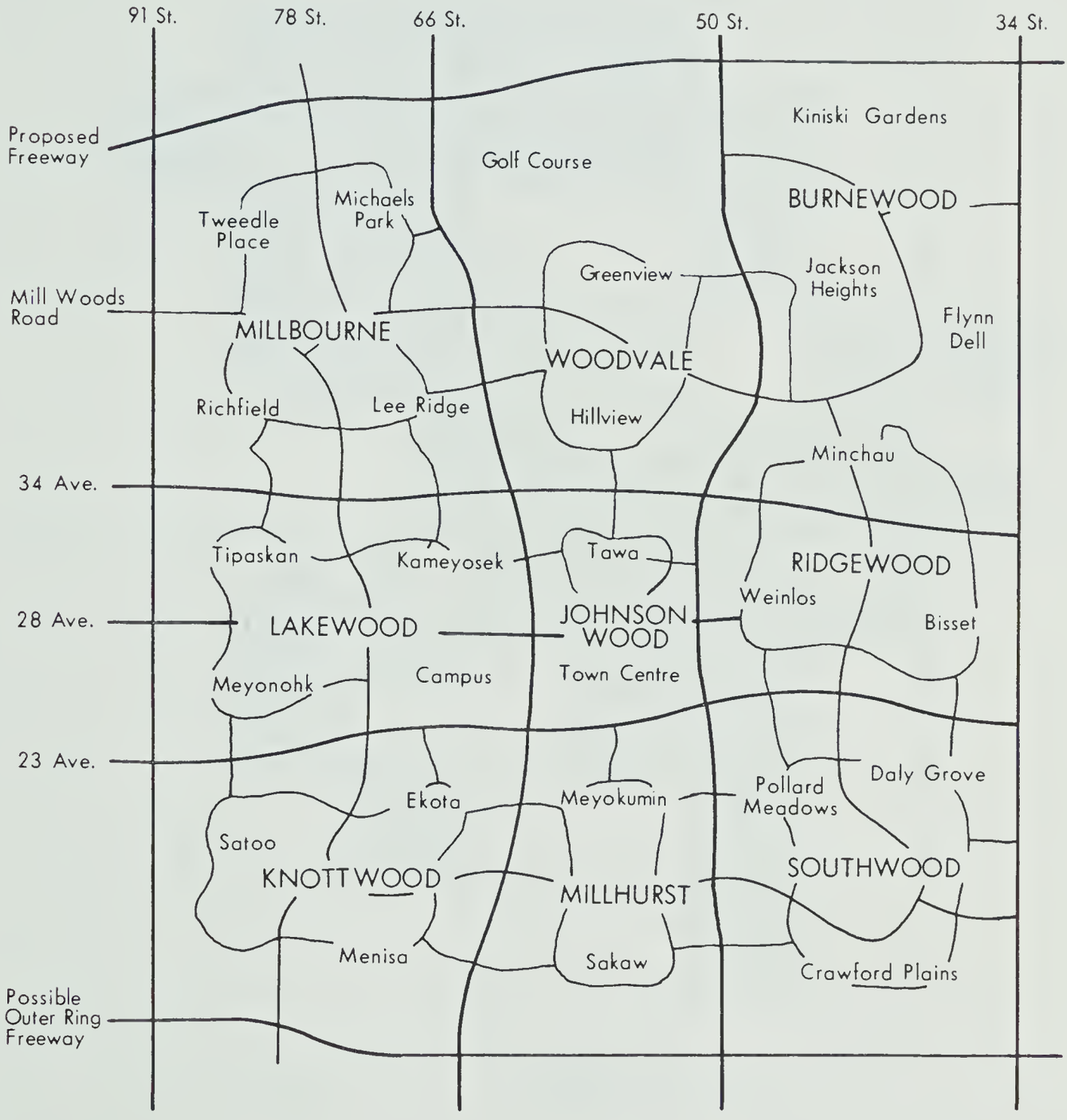
EDMONTON OUTLINE PLAN AREAS



Source: Planning Department, City of Edmonton

FIGURE 2

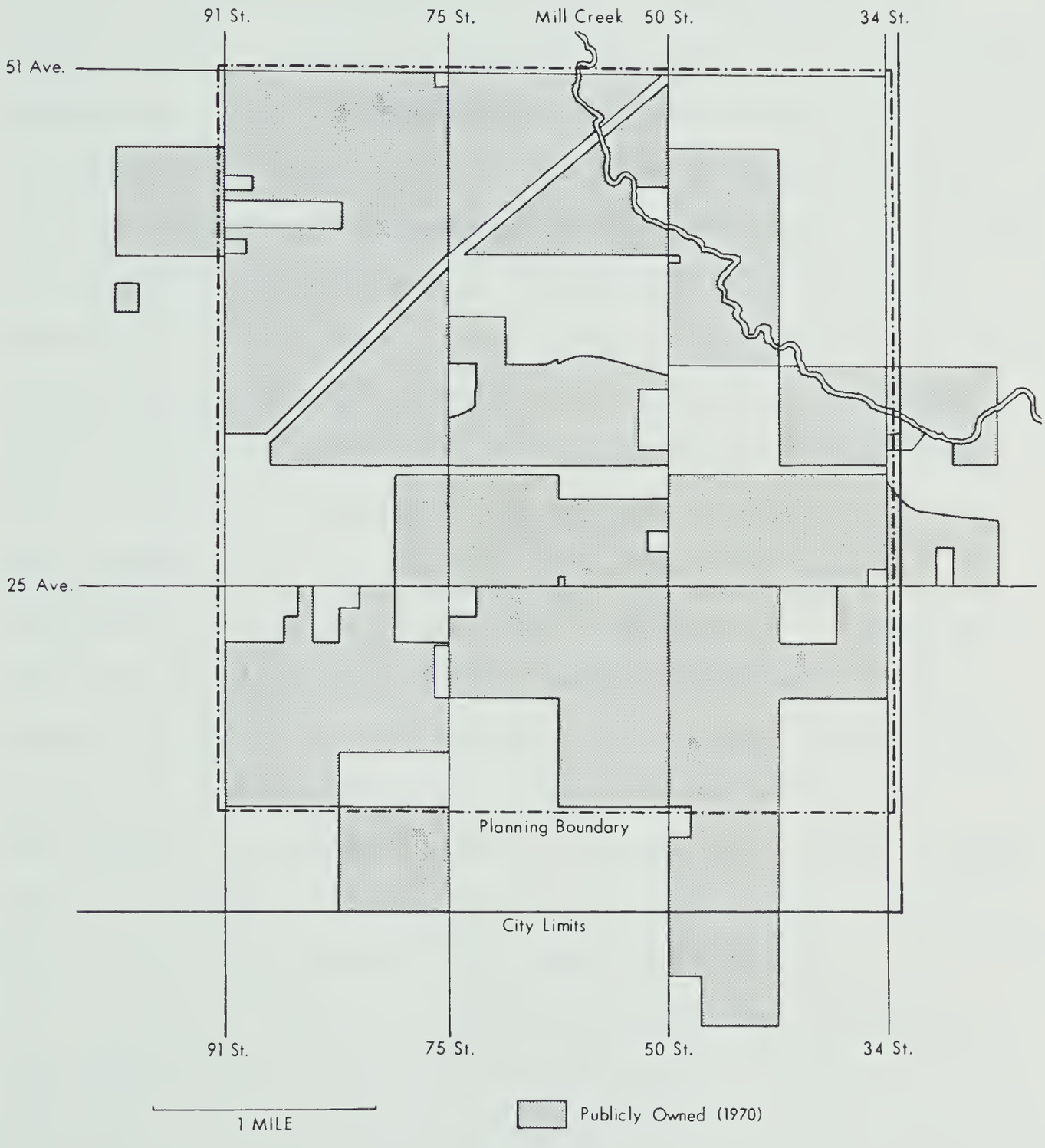
MILL WOODS PLANNING AREA



Source: Mill Woods Development Concept Report, 1971.

FIGURE 3

MILL WOODS LAND OWNERSHIP



Source: Mill Woods Development Concept Report, 1971.

per acre for a few small parcels. The average price was a little more than 2,000 dollars per acre, which was approximately equal to the agricultural land prices of the time. Two reasons account for this low acquisition cost. First, secrecy was maintained through high-level cooperation between the City of Edmonton and the Alberta Housing Corporation. It was not until the land had been optioned that the government approached Central Mortgage and Housing Corporation for funding under Section 42 of the National Housing Act. Thus, speculative buying caused by information leaks was eliminated. Second, the site, which was located outside the city's boundary and subsequently annexed, had been tentatively designated for industrial use with its development far in the future. Hence the only apparent immediate value of the land was for agricultural purposes and developers and speculators had had no incentive to acquire property there. In fact, the metropolitan regional plan, in its emphasis on a northeast-southwest axis of development for Edmonton, made it appear that the Mill Woods area would never be approved for urban use (Dennis and Fish, 1972; Parsons and Budke, 1972; and Spurr, 1976).

Since the Alberta Housing Corporation was responsible for acquisition, the provincial government retained title to the land. It did, however, agree to sell it to the City of Edmonton in stages over a fifteen year period, the price being equal to the actual cost of the land plus the interim carrying charges borne by the Alberta Housing Corporation.

But, "to give the city complete control over where and when Mill Woods [was to be] developed" (Mayor Terry Cavanagh as interpreted by the Edmonton Journal, Dec. 2, 1976) the entire land package was acquired well in advance of the scheduled date. By the end of 1976 the last 2,196 acres, from the original 4,425 acres of provincial land, was purchased for 7,200,000 dollars under the same conditions as in the past.[3] This final purchase concluded direct provincial participation in the project. The other 2,075 acres within the Mill Woods planning area remained in private ownership, forcing the City to enter into replotting negotiations before development could proceed on privately owned land.[4]

Development and Staging

From the outset of the Mill Woods project the City of Edmonton, in an agreement reached with the Alberta Housing Corporation, was given the responsibility for servicing all public land in the area.[5]

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[3]Though no formal statement has been released linking provincial and civic disagreement as contributing to the City's early acquisition of provincial land, it must be noted that throughout the summer of 1976 the City and Province argued over a pricing policy to eliminate early capitalization on subsidized lots (Edmonton Journal, May 6, June 23, June 24 and July 2, 1976).

[4]Replotting is a legal technique for cancelling existing subdivisions in areas of multiple ownership so that a comprehensive plan of subdivision may be adopted and the land re-allocated in proportion to the original ownership rights.

[5]The 1970 agreement also left the city with the responsibility of producing a plan for the area. To fulfill its obligation the City's Planning Department on behalf of the civic administration prepared the Mill Woods Development Concept Report (March, 1971). Included within the report are

The rate at which development was to take place was primarily dependent upon the 'real estate market conditions' and the 'status of the economy'. Still, it was "expected to take some 20-25 years to complete development of the area due to its massive size" (Mill Woods Development Concept Report, 1971, not paged). Starting in the west and north-west sectors, development was to take place in a counter-clockwise direction (Figure 4), for two reasons. First, Mill Woods was divided by two watersheds, one draining west and the other draining north. Thus, access to storm and sanitary sewer lines dictated the location of the initial development. Second, the staging sequence was said to be supported by 'sound planning principles', though these principles were not specified (Mill Woods Development Concept Report, 1971, not paged).

In the early stages of the project, lot production was hampered by a lack of proper drainage facilities. Only the Richfield neighbourhood and a small number of lots in Lee Ridge could be served from the existing sewer system. Beyond that, drainage was to occur in a seventeen foot (diameter), seven million dollar sewer that was to be operational by the spring of 1974. Environmental concerns forced a five million dollar extension to the North Saskatchewan River from Whitemud Creek, where it was originally planned to empty, but delays in the production and marketing of lots in Mill Woods were reduced by a temporary sewer which functioned

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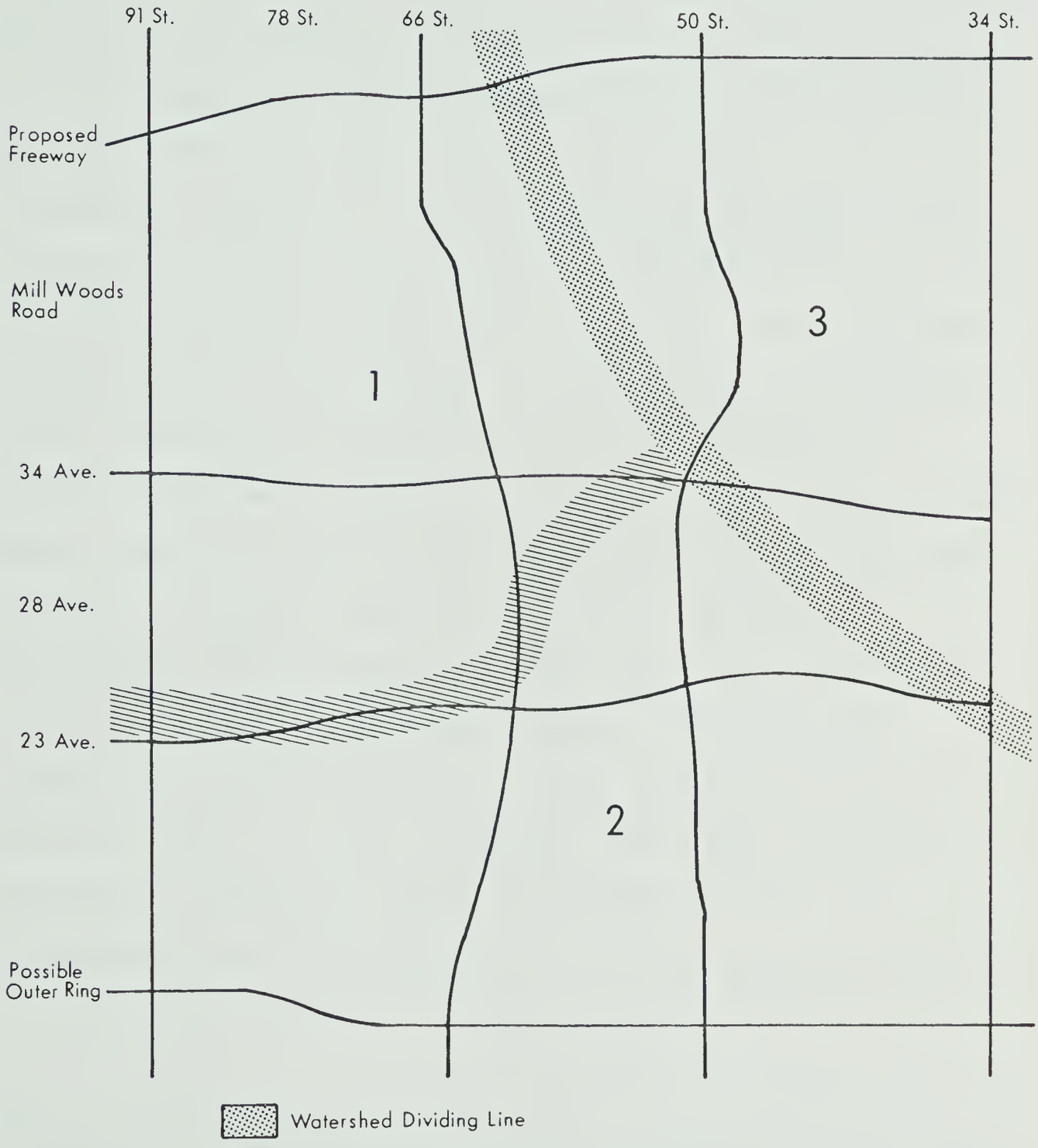
[5](cont'd)the project's economic, physical and social goals and objectives.

FIGURE 4

MILL WOODS LAND DEVELOPMENT SCHEDULE



Source: Mill Woods Development Concept Report, 1971.

while the permanent extension was under construction.[6]

With the provision of the necessary drainage system, the pace of lot development was increased substantially (Table 1). After 1974, in fact, lot production rose beyond the one neighbourhood a year which the City had planned to develop (Table 2), although some problems were encountered during replotting negotiations with the remaining private landowners (Figure 3). "On two occcasions the [Mill Woods] Project had to skip over areas of development to areas where the city had total ownership to allow more time for replot negotiations to be concluded.[7] In both cases it called for major interceptors to be constructed and forced major capital investment" (Report to Edmonton City Council on Mill Woods; prepared by Real Estate and Housing, Dec. 13, 1978, pp.20-21). Despite these difficulties, the pace of development in Mill Woods has been such that most of the land in the area had been serviced by 1980. The only exception is the northeastern corner where servicing is planned within a further two years. What was originally expected to take 20-25 years to develop may well be completed in half that time.

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[6] Sources include Edmonton Journal, December 18, 1972, and January 19, March 21, April 21, 1973, and telephone conversation with Stan Zaborowski, City of Edmonton, Department of Water and Sanitation.

[7] Section 127 of The Planning Act of Alberta (1977), requires the consent of 90 per cent or more of the registered owners of the original lots in a replotting scheme before it can be adopted.

TABLE 1

NUMBER OF SINGLE FAMILY LOTS SERVICED IN MILL WOODS FROM OCTOBER 31, 1971 TO DECEMBER 31, 1978

Date	Lots Added Since Previous Date
Oct. 31, 1971	
Oct. 31, 1972	236
Oct. 31, 1973	481
Dec. 31, 1974	1125
Dec. 31, 1975	1165
Dec. 31, 1976	581
Dec. 31, 1977	1060
Dec. 31, 1978[1]	2046
Total	6694

[1]The definition of a single family lot was changed in 1979, making it impossible to provide comparable data for the period since December 31, 1978.

Source: Status of Residential Land, City of Edmonton.

TABLE 2

MILL WOODS NEIGHBOURHOOD DEVELOPMENT

1971	RICHFIELD
1972	LEE RIDGE
1973	TWEEDLE PLACE KAMEYOSEK MICHEALS PARK (WEST)
1974	SATOO EKOTA
1975	MICHAELS PARK (SOUTHEAST) MEYONOHK (STAGE 1)
1976	MENISA TIPASKAN GREENVIEW HILLVIEW
1977	MEYOKUMIN SAKAW HILLVIEW (STAGE 3B)
1978	POLLARD MEADOWS DALY GROVE CRAWFORD PLAINS
1979	WEINLOS BISSET TAWA TOWN CENTRE

Source: Land Development Coordination Branch, City of Edmonton.

Goals and Objectives

The initial force behind the Mill Woods land assembly was the provincial government's concern about rising land and housing costs, and the need for affirmative action to counter these trends. As far as the majority of public authorities were concerned, the intention was to create an oversupply of relatively inexpensive lots, thus forcing down the price of lots elsewhere in Edmonton, with an ultimately depressing effect on housing prices.[8] Yet civic officials also recognized that Mill Woods gave them an opportunity to employ 'the most advanced planning techniques' in designing and developing a 'new urban community'. From these preliminary notions two formal goals were established. The first and primary goal reflected the project's initial economic intention, "to reduce the price of housing generally through land marketing and servicing programs", and was to be realized through administrative policy decisions dealing with land marketing and pricing issues. The second was of a more social nature - "to upgrade the quality of residential environment respecting the social, physical, and economical [sic] needs of the residents" (Mill Woods Development Concept Report, 1971, not paged) - and it was supplemented by a set of social, physical and economic development objectives (Figures 5, 6 and 7). Though their attainment was dependent upon planning and implementation decisions based on extensive design and planning analysis,

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[8]The initial purpose of the project is discussed in greater detail in section C of this chapter.

FIGURE 5

MILL WOODS SOCIAL OBJECTIVES

- encourage a composite and compatible population of a wide range of racial origins, income characteristics and personal background;

- stress social values and concerns and encourage citizen participation in evaluation and modification;

- improve the value of life through environment;

- foster social interaction between different groups and individuals;

- support personal integrity, individuality, freedom of choice, movement and expression;

- meet both the common need of the residents collectively and individual needs of special or minority groups; and

- provide a range of creative and rewarding urban experiences.

Source: Mill Woods Development Concept Report, 1971, not paged.

FIGURE 6

MILL WOODS PHYSICAL OBJECTIVES

- to protect and utilize to maximum advantage the unique topographical features of the study area, having particular regard to the Mill Creek Ravine and the fine viewpoints from high ground. Land use patterns and transportation system alignments should relate as much as possible to the natural contours of the land, and provide mainimum encroachment into ravine and natural park lands, striving for maximum retention of the exisiting tree cover;

- to create a functional, physical relationship to adjoining areas;

- to recognize existing homes and country estates by establishing compatible land use in their vicinity under the outline plan and to protect their means of access during the interim period prior to full development of Mill Woods;

- to correlate the provision of community facilities for both new and existing residents of the area;

- to exploit the natural drainage patterns of the site in association with storm drainage control measures to create lakes and open water courses, wherever feasible;

- to minimize the adverse effects of the pipeline and transmission corridors by incorporating their fixed alignments into land use patterns and transportation system alignments, emphasizing their potential for open space and pedestrian use;

- to respect non-residential uses within the study area by correlating land uses and development schedules to their particular characteristics and location; and

- to minimize possible adverse affects of scattered pockets of poor soil and high salinity.

Source: Mill Woods Development Concept Report, 1971, not paged.

FIGURE 7

MILL WOODS ECONOMIC OBJECTIVES

- to guarantee the availability of serviced lots for general housing purposes;

- guarantee sites for specific needs, such as schools, public housing, hospitals, parks, at minimum costs;

- guarantee the most economic form of growth for the City as a whole;

- control land value escalation so that fewer residents will be forced to rely on some form of subsidized housing; and

- implement, at lower right-of-way costs, major transportation facilities within the City; of orderly and economic growth in the City as a whole.

Source: Mill Woods Development Concept Report, 1971, not paged.

the marketing and pricing strategy encouraged certain types of people to look to Mill Woods and possibly determined who would live there. This created the potential for direct conflict among the goals and/or objectives because priorities had not been clearly established. For example, the social objective - to encourage a composite and compatible population of a wide range of racial origins, income characteristics, and personal background - may not have been attainable simultaneously with the economic objective - to control land value escalation so that fewer residents would have to rely on some form of subsidized housing. The situation was further complicated by vaguely structured objectives (Figures 5, 6 and 7) and pricing guidelines (Figure 8). The effect that this may have had on the success of the Mill Woods project, as a counter to rising land and housing costs, will be discussed in greater detail in Chapter 4.

C. Purpose of Study

The purpose of this study is to evaluate the impact which the Mill Woods land bank has had on housing prices in the city of Edmonton. Attention is therefore focused on the price objective of land banking theory, and it is necessary to determine the economic conditions under which that objective could hypothetically be satisfied. Moreover, since Mill Woods is a public land bank, it is necessary to explore the policy conditions under which the Mill Woods project was

FIGURE 8

MILL WOODS LAND PRICING POLICY GUIDELINES

- the effect pricing will have on other areas;

- the generation of funds for other areas;

- the local economic situation with regard to availability of mortgage funds;

- the volume of serviced and unserviceable land for housing in the City;

- the demand for housing of various types; and

- the economic capabilities of the home buyers and tenants.

Source: Mill Woods Development Concept Report, 1971, not paged.

administered to assess the degree to which the economic requirements were designed into marketing and pricing policies.

Proponents of land banking argue that advance, large-scale, public acquisition of land with development potential will result in lower land prices and, thus, in lower prices for housing (Hellyer, 1969; Kamm, 1970; Dennis and Fish, 1972; Spurr, 1976). The notion of "depressing effect", as it appears in the land banking literature, is therefore equated with an actual reduction in new housing prices through lower land costs, all things being equal. With respect to the price objective of the Mill Woods land banking project, however, the depressing effect may be interpreted in two ways. The first matches the intention of the general literature, but the second is more cautious, being restricted to the aim of reducing the rate of increase of land and housing prices. Unfortunately, it is not clear whether the distinction is deliberate or whether it results from some carelessness of expression which, itself, may reflect a lack of familiarity with the theoretical constructions. For example, B.R. Orysiuk (Alberta Housing Corporation) stated that the Mill Woods project "was focused at reducing land costs by the acquisition of a large tract of land to be utilized as a land bank thus offering the city the capability of ... controlling land costs in the future ..." (Mill Woods Development Concept Report, 1971, not paged). "Reducing" and "controlling" land costs are not

necessarily the same. Land costs may continue to increase although they are controlled.

The agreement between the City of Edmonton and the Alberta Housing Corporation addresses the price objective of the Mill Woods land assembly project in two ways, neither of which exactly conforms to theory. The goals of Mill Woods are said to be:

- The maintenance of a continuous and adequate supply of land so that the trend to spiralling costs, particularly for land, may be reversed; and
- The progressive servicing of land in the area to provide public and private housing of good quality at minimum cost (Mill Woods Development Concept Report, 1971, not paged).

Although, from the above statements, the initial and prime objective of the Mill Woods project can be identified as the price objective, its specific purpose is not clear. Was it to reduce land and housing prices as 'reversing the trend to spiralling costs' suggests, or was it to stabilize them without necessarily reducing them, as 'minimum cost' implies?

Against this uncertainty in the prepared statements on Mill Woods' price objectives, the ad lib statements of aldermen and civic officials who were closely associated with the project makes it evident that they hoped for a general decrease in land prices throughout the city. Mr. Philip Ellwood, project manager of Mill Woods, in an article

in the Edmonton Journal, was interpreted as saying that the net effect of Mill Woods would be "... a depletion [sic] in the demand for higher priced lots in other city suburbs." It was also stated that Ellwood saw the end result of this demand to be a lowering of prices by developers, if they were to remain competitive (Edmonton Journal, Jan.15, 1972). Alderman Evans, in a debate on Mill Woods marketing policy in Edmonton city council, noted the public affairs committee's fear that if 2,000 lots were not provided, Mill Woods "wouldn't have the effect it was intended to have in bringing lot prices down" (Edmonton Journal, July 18, 1972).

It therefore seems clear that, as far as civic officials were concerned, the intent of the Mill Woods project was to create an oversupply of relatively inexpensive lots, thus forcing down the prices of lots elsewhere in the city, with an ultimately depressing effect on housing prices.

II. CHAPTER TWO

LAND BANKING THEORY

The rise in urban land prices over the last two decades has caused increased concern about the provision of affordable housing for Canadians. And, arising from that, a range of explanations has been offered by the advocates of various courses of public action.[1] The view which has the greatest relevance in the context of this thesis is that which claims that the urban housing issue is rooted in imperfections in the land market system, and that the problem may therefore be corrected through a policy of direct public intervention in the form of public land banking operations.

Proponents of public land banking argue that lower land costs and, hence, reduced housing costs will result from the advance, large-scale, public acquisition of developable land. Six reasons are normally advanced to explain why public land banking should produce these results.

1. There is no speculative profit in publicly owned land prices. Land can be acquired in advance of need and sold for acquisition, servicing and carrying costs, with no premium to be paid for

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[1]For a review of five popular explanations about the cause of the urban housing problem, see Bourne (1977, p.16-24). These explanations are entitled the conspiracy theory, the demand-pull theory, the multiple bottleneck theory, the cost-push theory, and the institutional or neo-Marxian theory.

speculators' profits.

2. Large-scale public land holdings can be used to "flood the market" whenever price increases become "excessive", moderating the rise in new land prices.
3. Government agencies can acquire land more cheaply than private developers, since government agencies possess the power of expropriation.
4. Government possesses planning powers that can ensure that all of its land is marketed; i.e. government agencies will always buy in the right places because their zoning and planning regulations will ensure that the land is approved for development.
5. Public carrying costs are lower, because government borrowing costs are generally lower than private borrowing costs.
6. Public servicing costs may be lower than private costs because of economies of scale or a reduction in service standards (Carr and Smith, 1975, p.317-318).[2]

Those who argue against public land banking dispute the notion of public ownership as a solution to high land prices and question the underlying assumptions upon which this

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[2]These reasons have also been identified by Dennis and Fish (1972); Bureau of Municipal Research (1973); Hamilton (1974); Pearson (1975); Hamilton and Baxter (1977).

claim rests. Some contend that "controlling land prices, of and by itself, is a questionable objective .... It is the supply [of land], not the price which is the problem" (Hamilton, 1974, p.14). Yet others maintain that supply restriction theories fail to explain the dramatic increases in land and housing prices. According to the authors of the Greenspan Report, their "evidence points overwhelmingly to demand factors and changing expectations as the primary forces behind the 1972-1975 land and housing price boom" (p.21). They concluded "that restrictions by developers and municipalities, by planners and ratepayers, could not have caused the house price boom", and that, because of the nature of land and housing markets, "heavy government lot production could not have prevented the house price boom" (Greenspan, 1978A, p.57). But, although Hamilton and Greenspan have expressed divergent views about the causes of the rapid increases in the land and housing markets, they offer similar arguments to explain why land banking could not reduce prices. For both, these arguments are rooted in the structure of the land and housing markets.

A. Land and Housing Markets

"The housing market is a highly complex and diverse market complicated not only by its various components and their interrelationship but also by the large number of factors that affect it" (Smith, 1974, p.17). In spite of this, housing differs from other commodities in only two

respects: its immobility and its durability. Because of its immobility, services rendered by the standing stock of housing must be consumed on site. An oversupply of housing in one location can not be used to meet excess demand in another. Consequently, the immobility of housing eliminates an important source through which some of the demand could be met.

In the second place, because of the durability of housing, the standing stock is very large in comparison to the annual rate of new production. For Canada, as a whole, the rate of annual increase is about 4 per cent which means, in the short run, that the stock is fixed, no matter what happens to demand. This has therefore led to the inference that the average price of housing is determined primarily by the demand for the standing stock. In contrast, for most other commodities, stocks are relatively insignificant in determining price. It is the cost of new supplies, and thus the rate at which these supplies flow into the market, that is important. Price, however, functions the same way in all markets. It is determined, essentially, by the interaction of supply and demand forces. When supply is equal to demand an equilibrium price will result. An increase in demand will create an increase in price because demand exceeds supply. In reacting to the higher price, supply will increase, forcing price down. The only difference in the housing market is that the response to higher prices through increased supply is relatively slower than in other markets

because longer time periods are required to alter the stock significantly. In this interpretation, then, it is the price of the standing stock of housing which determines the prices of new structures (stock-flow relationship) rather than the converse (Hamilton, 1974; Smith, 1974; Pennance, Hamilton and Baxter, 1976; Goldberg, 1977; Greenspan, 1978A).

Some authors, however, maintain that this relationship is reversed. Dennis and Fish, after identifying a close correlation between price movements for newly produced houses and for existing houses, state that "on the basis of those relationships, it appears that the costs of new houses are a major influence on the prices of houses in general, despite the fact that they represent a very small increment in the total stock" (1972, p.77). This interpretation stems from the fact that land prices have increased at a faster rate than house prices, from which it is illogically concluded that the rapid increase in land prices is, to a large extent, the culprit of the house price boom. But land prices can be interpreted as the effect rather than the cause of high house prices. To illustrate this point, assume that a builder decides to build a house that will sell for $70,000. If building costs and normal profits total $40,000, he can bid up to $30,000 for the serviced lot (i.e. the lot price has been determined on a residual basis). A year later, house prices have increased to $80,000 with construction costs including normal profits now totalling $44,000. Therefore, the builder will be willing to pay

$36,000 for the same lot. If the land developer's asking price is higher than $36,000, the builder can not profitably build and thus the piece of land will remain idle.[3]

Taking this logic one step back, it can be shown that the price of unserviced land is a function of the price of serviced lots. Continuing from the previous example, the land developer's purchasing price of raw land, plus the servicing costs, along with a normal profit, can not exceed $36,000 if the lot is to be sold. Assuming that the costs of servicing, combined with normal profits, total $12,000, the land developer would be willing to pay $24,000 for the raw land. Therefore, speculators or agents dealing in raw land must act as price takers to the land developers with the price level determined from the price of existing housing. The price the land speculator is willing to pay for raw land is based on the value of future net benefits that the asset is expected to generate; in other words, it is based on the anticipated price of a lot at some time in the future. A correct prediction as to future lot prices will result in normal profits to the speculator. If the speculator's anticipation is too optimistic, he will be unable to sell his land without a capital loss. The reverse situation is one where the speculator will reap 'windfall' profits because of underpredicting the eventual selling price.[4]

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[3]This illustration is similar to Davis (1976, p.60) and follows from McFadyen's (1978, p.69) explanation of the way that residential lot prices are determined.

[4]In this simplified illustration, builder, land developer and speculator work in competitive markets. The builder buys

Individuals may take advantage of large price increases but this simplified illustration clarifies the causal relationship with respect to the land and housing markets. Failure to recognize these relationships has led to the commonly held, misconceived view about the source of rapid increases in the price of houses. In summary, it is the demand for housing services which sets the price of existing houses in the short run. In turn, the stock of existing houses determines the price of new housing with the costs of land being a function of these new houses. In the long run, however, the supply of housing services will meet effective demand at current prices.

Demand, according to most economists, remains the dominant element in the supply-demand relationship of housing. Therefore, changes in the underlying forces affecting demand - population, income, price, consumer preference, financial conditions (credit availability, interest rates), along with inflationary expectations and various housing taxes or tax breaks - will be rapidly reflected in housing prices. Hence, public intervention into the housing market, to achieve selected goals, must be made through government policies which are based on a sound understanding of not only the factors affecting demand but also the relationship between supply and demand in both the housing and land markets. Without this understanding and a

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[4](cont'd)from land developer who in turn buys from speculator. In reality there may be several more steps with speculator buying from speculator. Land developers may also act as both speculator and developer.

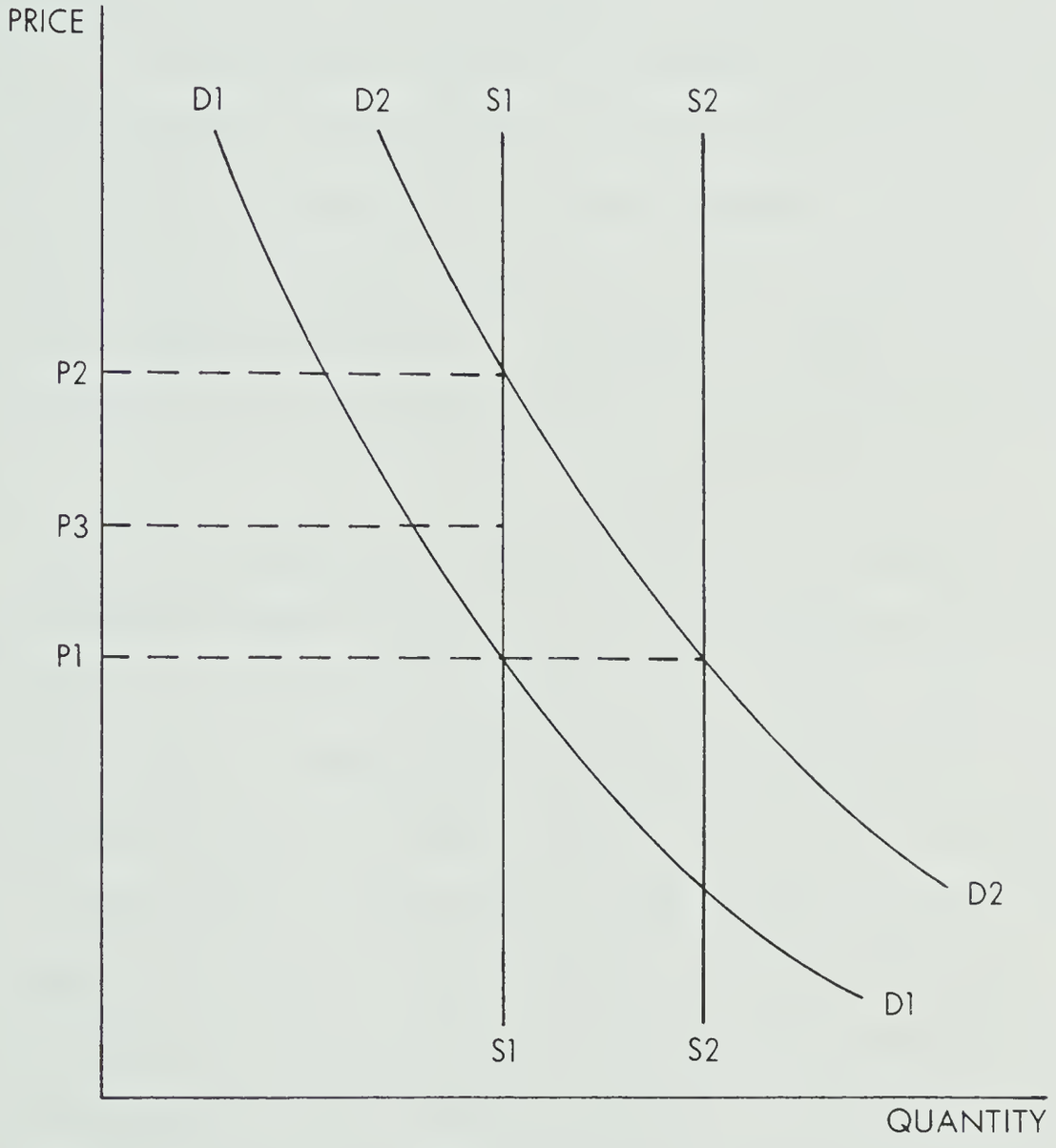
knowledge of causal factors of housing and land problems, policies directed at these problems may produce unexpected and unwanted results. In a paper to the Conference on Urban Housing Markets, in 1977, Scheffman established the importance of the causal factors in the recent Canadian urban land and housing price boom by stating that, "although the majority of academic urban economists are apparently in agreement that the boom was the result of a large increase in demand for housing, brought about principally by inflation, demographic factors, increasing income, and institutional changes in the mortgage market and tax policies, this agreement is evidently not shared by the wider circle of professionals interested in urban problems or by the 'man in the street'. This is unfortunate, since it is politicians and ultimately the man in the street, who determine government policies, and policies directed at incorrectly perceived causal factors may have serious consequences" (Scheffman, 1978, p.57).

If the majority of urban economists are correct in their contentions that the land and housing price boom is the result primarily of demand factors rather than supply restrictions, then, from a theoretical standpoint, it is possible to conclude that 'controlling land prices, of and by itself, is a questionable objective' and land banking is, to a large extent 'directed at incorrectly perceived causal factors'. Since land prices are the effect rather than the cause of high house prices, providing relatively inexpensive

land to the house builder will result in some form of subsidy to the builder and/or homeowner. If income redistribution is the main objective of land banking, no argument can be presented against government authorities providing relatively inexpensive land. But if, as previously discussed (Chapter 1), the aim of land banking is a general decrease in housing prices throughout the greater area in which a land bank operates, then the provision of cheaper land by public authorities, most likely, will not achieve this objective. Figure 9 illustrates this point. Current supply for housing is depicted by S1S1 while D1D1 represents current demand. The intersection of S1S1 and D1D1 represents the equilibrium or market price (P1) for housing. In a competitive market, an increase in demand will, in the short run, result in a new equilibrium price (P2). In the long run, the housing industry will increase supply to S2S2 with the market price returning to P1. If public authorities, acting as another firm in the land market, provide land at below market price, the result will be a new lowered house price (P3) to those who are fortunate enough to receive the subsidized land. Since new house prices are equal to land costs plus building costs, the subsidy will be equal to the difference between the market price for land and the price of publicly provided land or P2 minus P3. Due to the inelasticity of supply caused by the rather fixed nature of the housing stock in the short run, the market price for

FIGURE 9

THEORETICAL SUPPLY - DEMAND RELATIONSHIP



housing will remain at P2 until supply is expanded.[5] Moreover, an individual who has purchased a house built on subsidized land at price P3 could resell the house at price P2, since supply is essentially fixed in the short run. Firms in the land and housing market would react to the increased price of housing (P2) by increasing the factors of production so as to increase supply. In a competitive market, it is unlikely that public authorities would have any advantage over the private sector in mobilizing the needed resources necessary to expand supply. It would therefore make no difference to the rate at which new housing is supplied whether the market is made up totally of private firms or of a combination of public and private firms.

Thus far, discussion has centered on the supply side of housing and the implications of rising demand on the rather fixed nature of the housing stock in the short run. It was shown that public land banking would be unsuccessful in reducing land costs if supply restrictions were nonexistent and if demand was to blame for rising prices. It has also been suggested, however, that delays in the planning approval process, along with an increased concentration of land development firms, with the power to withhold land from development, have been major forces in restricting the

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[5] The price of housing may even increase beyond P2 if public authorities provide land at below market price because a new segment of the population could now afford housing. Demand would increase while supply would remain fixed, the result being a higher equilibrium price for housing.

supply of lots. Cook maintains that, in Edmonton, "the major cause of high lot prices (exclusive of servicing costs) was a lack of an adequate and competitive supply of lots" (Cook, 1977, p.72), due primarily to civic policies and the oligopolistic nature of the land development industry. If his conclusions are correct, land banking for the purpose of solving supply restrictions caused through civic policies would not be necessary, since the policies could be changed without embarking on a land banking project. But, land banking could be an important tool in correcting imperfections in the market system. When speculators and/or developers, as individuals or as a group, are in a situation where they can artificially increase price by withholding land, and exercise this power, then a public land bank entering into the land market would act as another firm in the land development industry and provide competition in the land market. In order for the land banking operations to be successful in affecting price, though, several conditions would first have to be met.

1. The land bank is to be operated on a long run, break-even basis.
2. Land bank operations are integrated with land use planning controls.
3. Land bank lot production is sufficiently large to dominate the market for residential lots.
4. The land bank is able to acquire its initial raw land holdings and to replenish its holdings at

existing use value (McFadyen, 1978, p.68).

According to McFadyen, failure to meet these conditions may seriously affect the ability of a land banking project to reduce residential lot prices.

In summary, due to the nature of land and housing markets, it is doubtful whether, in a competitive market, land banking can succeed in reducing housing prices when demand rather than supply is to blame for rising prices. However, if monopoly or oligopoly powers in the land development industry result in a restriction of supply, a public land bank which meets McFadyen's four conditions could be successful in reducing prices by introducing competition in the land development industry.

III. CHAPTER THREE

METHODS

In the concluding section of Chapter 1, discussion centered on the purpose of the thesis, giving it general direction and boundaries. The succeding section will further define the limits of the study through, first, the formulation of specific questions dealing directly with the central theme of the thesis; second, an explanation of the choice of single family housing as the major housing component to be examined in the study, as opposed to other housing types; and, third, a breakdown of the data necessary to provide answers to the research questions.

A. Question Formulation

The remainder of this thesis will concern itself with the following questions which have been developed from the discussion in the preceding two chapters. Keeping in mind the initial intent of the Mill Woods project and the theoretical circumstances under which a land bank may be successful in effectively reducing land prices, the questions are:

- Has the Mill Woods land banking project been successful in reducing housing prices throughout Edmonton, by decreasing land prices in general?
- If it has been successful, was it because public authorities were able to create an oversupply of

relatively inexpensive lots, thus forcing down the price of lots elsewhere in the city, with an ultimately depressing effect on housing prices?

- If it has not been successful, was it because public authorities were unfamiliar with the theoretical constructions and the economic conditions necessary for a land banking project to succeed and/or because the Mill Woods land bank failed to meet the aforementioned conditions (McFadyen's)?

B. Single Family Housing

The 'homeownership ethic' is firmly entrenched within Canadian society but, for an increasing number of Canadians, the dream of owning their own home remains nothing more than a dream. The rapid rise in single family housing prices has meant that fewer people can now experience the amenities associated with homeownership, particularly since the cost of rental accommodation has not increased as quickly as that of owner-occupied housing (Table 3). Although the economics of the situation has dictated a trend towards multiple family dwellings,[1] homeownership continues to be the aspiration of most Canadians. The 1969 Task Force on Urban Development observed that 'expert' testimony stressed how

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[1]The Alberta Land Use Forum (1974) estimated that for Edmonton the relative proportion of single family housing to the housing stock decreased from 69.4 per cent in 1961 to 59.2 per cent in 1974. Also, Canadian Housing Statistics reveal that from 1971 to 1979 the trend continued, with 42.6 per cent of dwelling starts being in the single family category.

TABLE 3

PRICE INDEXES FOR SELECTED HOUSING COMPONENTS
CANADA - 1971 TO 1979

Year	Rent[1]	Owned Accommodation[2]
1971	100.0	100.0
1972	101.4	108.0
1973	103.2	118.8
1974	106.2	130.3
1975	112.0	143.6
1976	120.0	163.4
1977	127.6	181.2
1978	134.4	196.1
1979	140.6	208.3

[1] Rent index includes rentals and the cost of tenant repair, and estimates price changes for a constant quantity of rented accommodation.
[2] Owned accommodation index measures price changes for property taxes, mortgage interest rates, repairs, the replacement cost of new houses and property insurance.

Source: Canadian Housing Statistics, 1979, Table 108.

"future housing policy must be directed to the provision of multiple-unit accommodation, largely on a rental basis, while group after group of ordinary citizens voiced a deep yearning to own a single-family dwelling of their own" (Hellyer, 1969, p.15). Similarly, an Edmonton survey, in 1974, revealed that the majority of households desired single family housing; 87.8 per cent of the respondents listed as their first choice either a single family house or a country residence, while 85.4 per cent of renters in an Alberta sample in the same survey preferred to own rather than rent (Alberta Land Use Forum, 1974, p.99-100). Because owner-occupied dwellings (usually single family housing) remain the most desired housing types and their cost has increased at a substantially greater rate than that of multiple family housing, the emphasis in this thesis will be on the effect of the Mill Woods land bank upon the prices of single family detached housing in Edmonton.

Two other factors were also considered in this decision. First, single family housing data are more readily available and accessible than multiple dwelling data. In cost information, in particular, Canadian Housing Statistics has tended to focus on the single family rather than the multiple family housing sector, since it has direct access to information on the land, construction and total housing costs of homes financed under the National Housing Act. By contrast, Statistics Canada's rent price index is the only source of multiple family housing cost data. It, however,

estimates price changes for a constant quantity of rented accommodation with no reference to type. A great deal of multiple housing information is in fact grouped in this manner and so is of limited value.[2]

Second, artificial conditions may have been created in the multiple family housing market from the formation of the Alberta Rent Control Board. When rent controls were imposed on January 1st, 1976, they were limited to the existing stock of rental accommodations, but there could have been repercussions on future construction. If investors viewed this government action as limiting the price they could charge for accommodations to a level lower than the market would endure, they may have turned to alternative investments. There is no way of determining whether this actually occurred, so it would be unsound to draw conclusions about the effect of Mill Woods upon the multiple family housing market.

C. Data

"An investigator's control of the quality and relevance of data depends on the scale of his study, and on the resources available to him" (Daugherty, 1974, p.1). Previous discussion limited the scope of the study by clearly defining the problem. It was determined for a number of reasons that the success of Mill Woods in reducing housing

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[2]For example, the City of Edmonton's Status of Residential Land and Servicing Agreements do not differentiate among types of multiple housing.

prices throughout the City of Edmonton would be discussed with respect only to single family housing. The data necessary and available to evaluate the problem may be broken down into three categories:

1. Cost and price data, which includes:
   - new housing prices and land and construction costs (Canada Mortgage and Housing Corporation, CMHC);
   - existing housing prices (Multiple Listings Service - MLS, A.E. LePage Melton Real Estate Ltd.);
   - selected price indexes - new housing price index, labour, materials and residential building construction indexes, and consumer price index (Statistics Canada); and
   - servicing costs (George Walker, Walker Newby and Associates Ltd.).
2. Demand data, which includes:
   - unemployment rates (Statistics Canada);
   - household formation (Statistics Canada);
   - population increase (Statistics Canada and Edmonton Census);
   - consumer price index (Statistics Canada); and
   - stock market information (Toronto Stock Exchange Review).
3. Supply data, which includes:

- serviced lot inventories (Planning Department and Land Development Coordination Branch, City of Edmonton);
- housing starts (Canadian Housing Statistics); and
- developers of single family lots (Land Development Coordination Branch, City of Edmonton).

All of the data listed above can be classified as secondary data, since they are derived from sources under the control of an individual of individuals other than the user. One of the difficulties with this type of information is that some publications are discontinued (Statistics Canada's Price and Price Indexes ended October 1975) while new ones are created (Statistics Canada's New Housing Price Index - Serviced Lots Only was commenced in 1975). Comparison over time may, therefore, be difficult. Another problem rests with the breakdown of data into geographical units. Boundaries do not always coincide, and while some data may be aggregated at the national level, others may be totalled at the local level. These limitations must be kept in mind, since "the quality of analysis [is] limited by the nature of the information available" (Daugherty, 1974, p.1).

In the case of this thesis, cost and price trends will be analyzed to determine the effect the Mill Woods land bank has had on land and housing prices throughout Edmonton. Likewise, trends in the supply and demand for land and

housing in Edmonton will be identified and used to provide possible explanations as to why or why not Mill Woods succeeded in its price objective.

IV. CHAPTER FOUR

DISCUSSION OF RESULTS

A. Trends in New Housing Costs and Prices

The price of both new and existing housing in Edmonton has continued to rise since 1972, when the first lots of the Mill Woods land bank were marketed. While housing prices increased at a greater rate than the general rate of inflation, the lot component of new house prices increased at a rate significantly higher than that of the other components of housing prices.

Figure 10 presents the relationship, for Edmonton, of lot and construction costs to the total cost of new single-detached dwellings financed under the NHA.[1] It demonstrates that from 1971 to 1978, lot cost as a proportion of the total cost of a new house rose, on average, from 29 to 42 per cent. During the same period, average lot costs increased 314 per cent as compared to 138 per cent for average construction costs (Table 4). The greater rate of increase of lot over construction costs explains the shift in the proportion of lot costs to the total cost of housing. Table 4 also shows that average new

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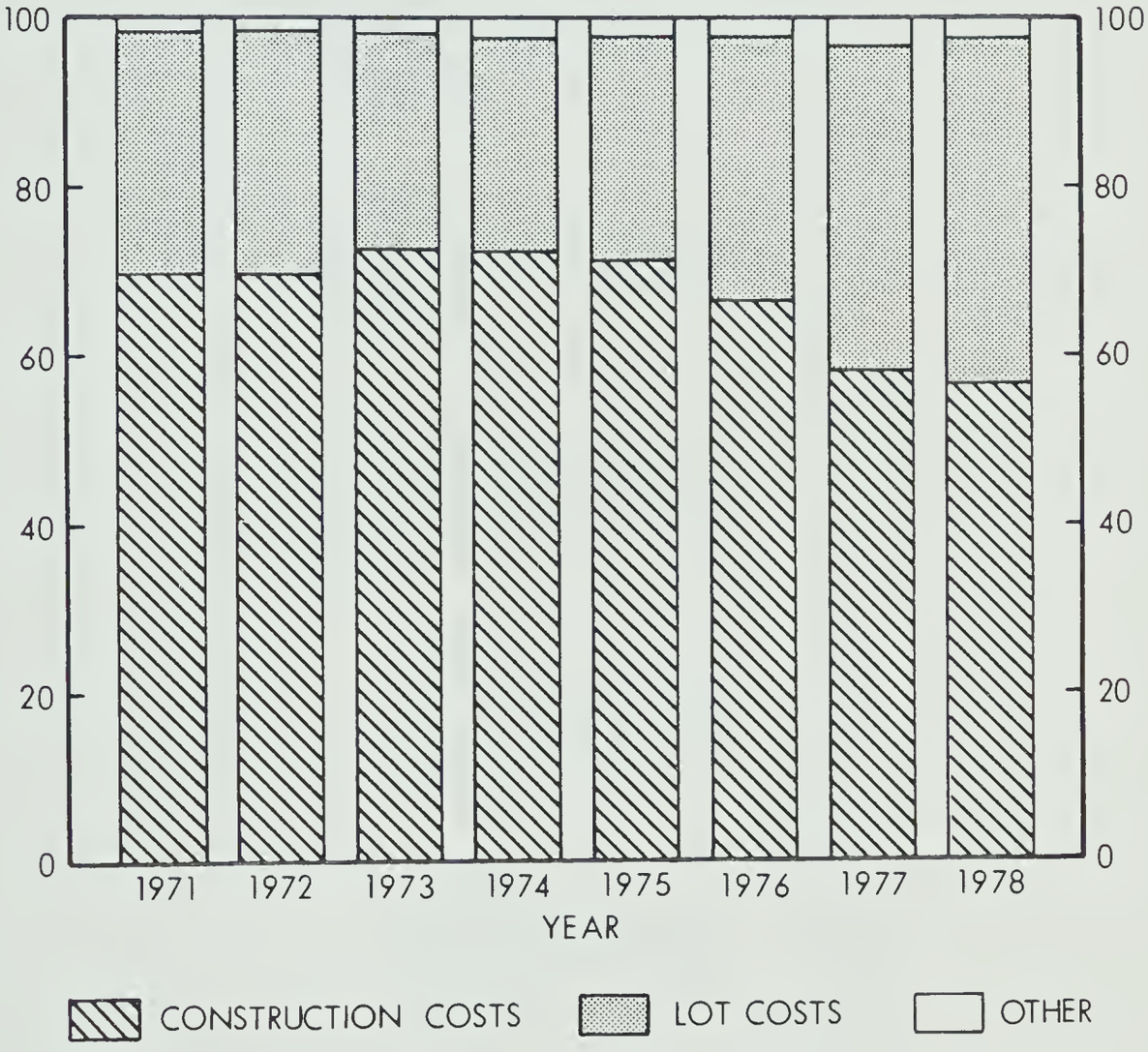
[1]Canadian Housing Statistics note that land cost data reflect the prices paid for lots regardless of the extent of servicing or method of financing. In Edmonton, land cost may be equated to the price of a serviced lot. To clarify the terminology of the thesis, lot cost will be the cost of a serviced lot, and land cost will be the cost of an unserviced lot.

FIGURE 10

PERCENTAGE COSTS OF NEW SINGLE DETACHED DWELLINGS FINANCED UNDER THE NHA EDMONTON



Source: CMHC - Edmonton

TABLE 5

SELECTED PRICE INDEXES - 1971 to 1979

Year	Consumer Price Index	New House Price Index	Residential Building Construction Input Price Index Prairie Provinces	Residential Building Construction Input Price Index Canada	Residential Building Construction Input Price Index Materials	Residential Building Construction Input Price Index Labour
1971	100.0	100.0	100.0	100.0	100.0	100.0
1972	104.8	109.1	109.5	110.1	108.7	111.0
1973	112.7	132.6	122.5	123.2	121.4	124.7
1974	122.5	172.8	134.8	134.7	132.8	138.7
1975	135.8	205.3	145.4	144.0	138.9	158.1
1976	148.7	245.8	167.6	160.5	154.4	193.3
1977	162.2	262.8	184.6	175.5	167.5	217.8
1978	176.7	280.9	201.2	192.0	186.4	229.8
1979	192.5	302.5	219.1	211.4	206.0	244.5

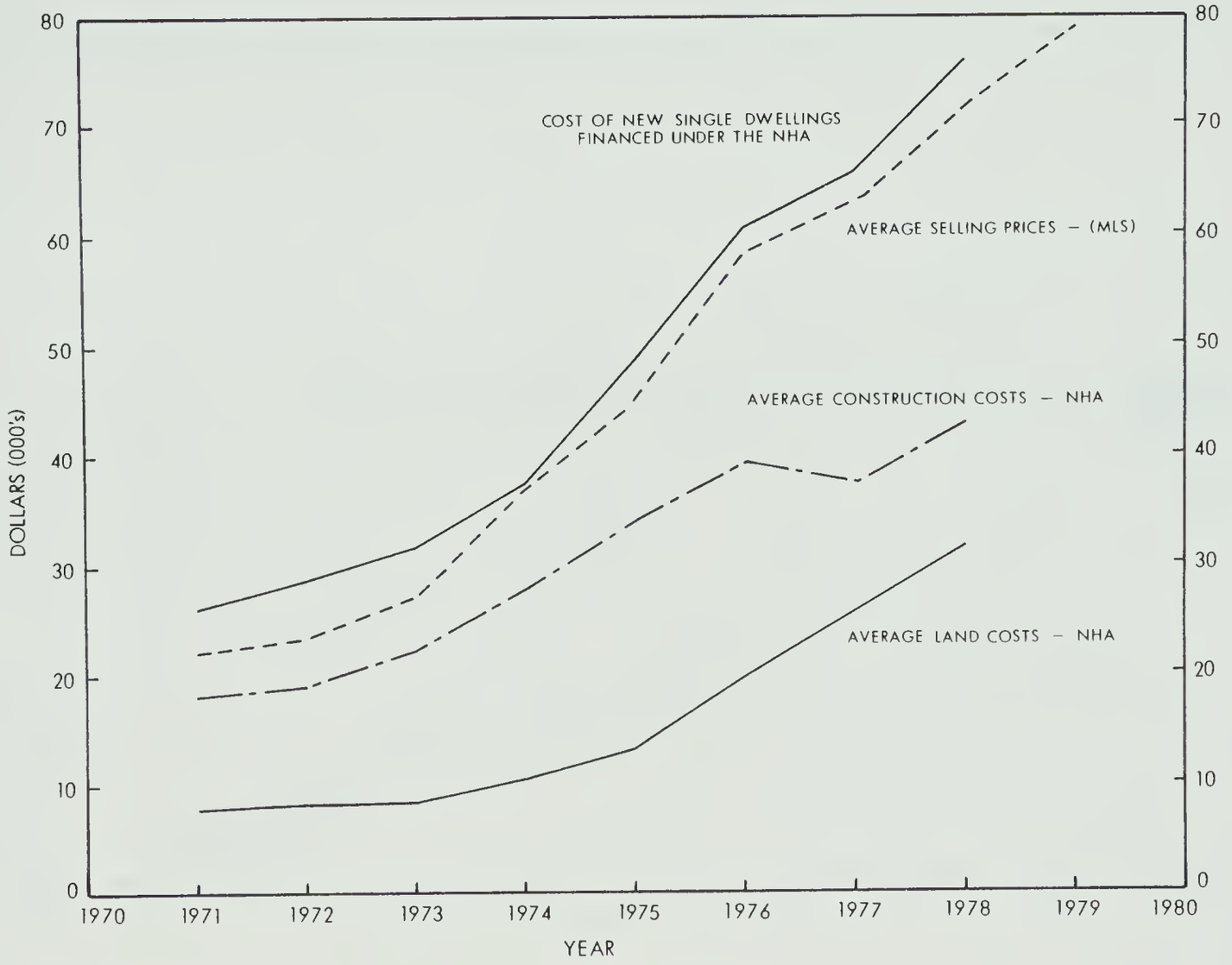
Sources: Statistics Canada, Construction Price Statistics - Catalogue 62-007 and Statistics Canada, Consumer Prices and Price Indexes - Catalogue 62-010.

house costs rose 192 per cent from 1971 to 1978, while the price of existing housing sold through the Multiple Listings Service (MLS) increased 222 per cent over the same period. The cost and price data depicted in Table 4 are further illustrated in Figure 11 which displays the continuing increase in all variables, broken only by the decline in construction costs between 1976 and 1977. A close relationship between the price movement of new and used housing may also be identified from Figure 11.

Figure 12 presents relative changes in the price of cost components of housing using Statistics Canada indexes (Table 5), based on 1971 prices. It shows that, since 1971, the rate of increase of the new housing price index has greatly exceeded that of the consumer price index, tripling in value as compared to a near doubling of the latter. It is also clear that the rise in the new housing price index cannot be fully explained by increases in labour and building material costs. The residential building construction index for the prairie provinces (which is obtained by averaging the labour and materials indexes) increased by only 119 per cent from 1971 to 1979 as compared to a 202 per cent increase in the new housing price index. Again, then, the inflating effect of lot costs has been pinpointed; as a component of housing prices, they must have risen at a faster rate than housing costs because construction costs rose at a slower rate than housing costs. Table 4 demonstrated this for new single-detached dwellings

FIGURE 11

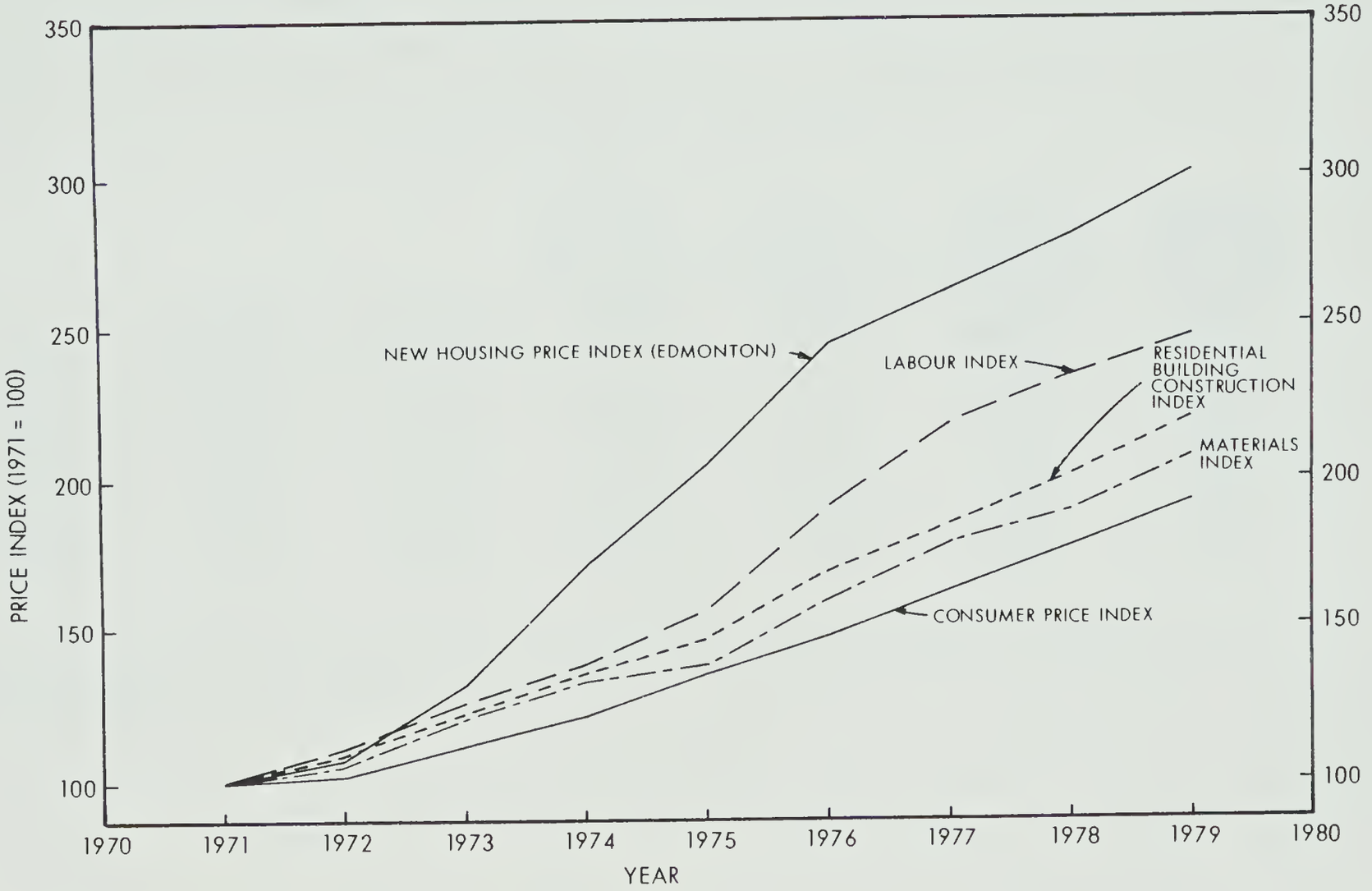
HOUSING COST AND PRICES – EDMONTON



SOURCE: TABLE 4

FIGURE 12

SELECTED PRICE INDEXES – 1971 TO 1979



SOURCE: TABLE 5

TABLE 5

SELECTED PRICE INDEXES - 1971 to 1979

Year	Consumer Price Index	New House Price Index	Residential Building Construction Input Price Index Prairie Provinces	Residential Building Construction Input Price Index Canada	Residential Building Construction Input Price Index Materials	Residential Building Construction Input Price Index Labour
1971	100.0	100.0	100.0	100.0	100.0	100.0
1972	104.8	109.1	109.5	110.1	108.7	111.0
1973	112.7	132.6	122.5	123.2	121.4	124.7
1974	122.5	172.8	134.8	134.7	132.8	138.7
1975	135.8	205.3	145.4	144.0	138.9	158.1
1976	148.7	245.8	167.6	160.5	154.4	193.3
1977	162.2	262.8	184.6	175.5	167.5	217.8
1978	176.7	280.9	201.2	192.0	186.4	229.8
1979	192.5	302.5	219.1	211.4	206.0	244.5

Sources: Statistics Canada, Construction Price Statistics - Catalogue 62-007 and Statistics Canada, Consumer Prices and Price Indexes - Catalogue 62-010.

financed under the NHA. Statistics Canada index data on serviced lots,[2] since 1975, also support this notion. The data are presented in Figure 13. Based on 1976 prices, lots in Edmonton were clearly becoming more expensive relative to the construction component of housing costs.

In addition, while the lot component of the total cost of housing was increasing relative to the construction component, the land costs were becoming more expensive in relation to servicing costs. Table 6 depicts the changes in servicing costs, for Edmonton, from 1971 to 1979. During that period, the cost of servicing a lot increased by 169 per cent, as compared to 314 per cent for the cost of a serviced lot. Therefore, it can be concluded that land costs rose at a rate appreciably higher than servicing costs.

To review, through the 1970's both new and existing housing was becoming more expensive relative to other goods and services. Of the two basic cost components of new housing (lot and construction), the lot component was taking up a larger portion of the total cost of a new house. In turn, land costs were increasing at a greater rate than those of servicing, making the land cost segment of the total cost of a house more expensive relative to both servicing and construction costs. From this evidence, it is possible to conclude that the Mill Woods landbanking project has not succeeded in reducing housing prices throughout

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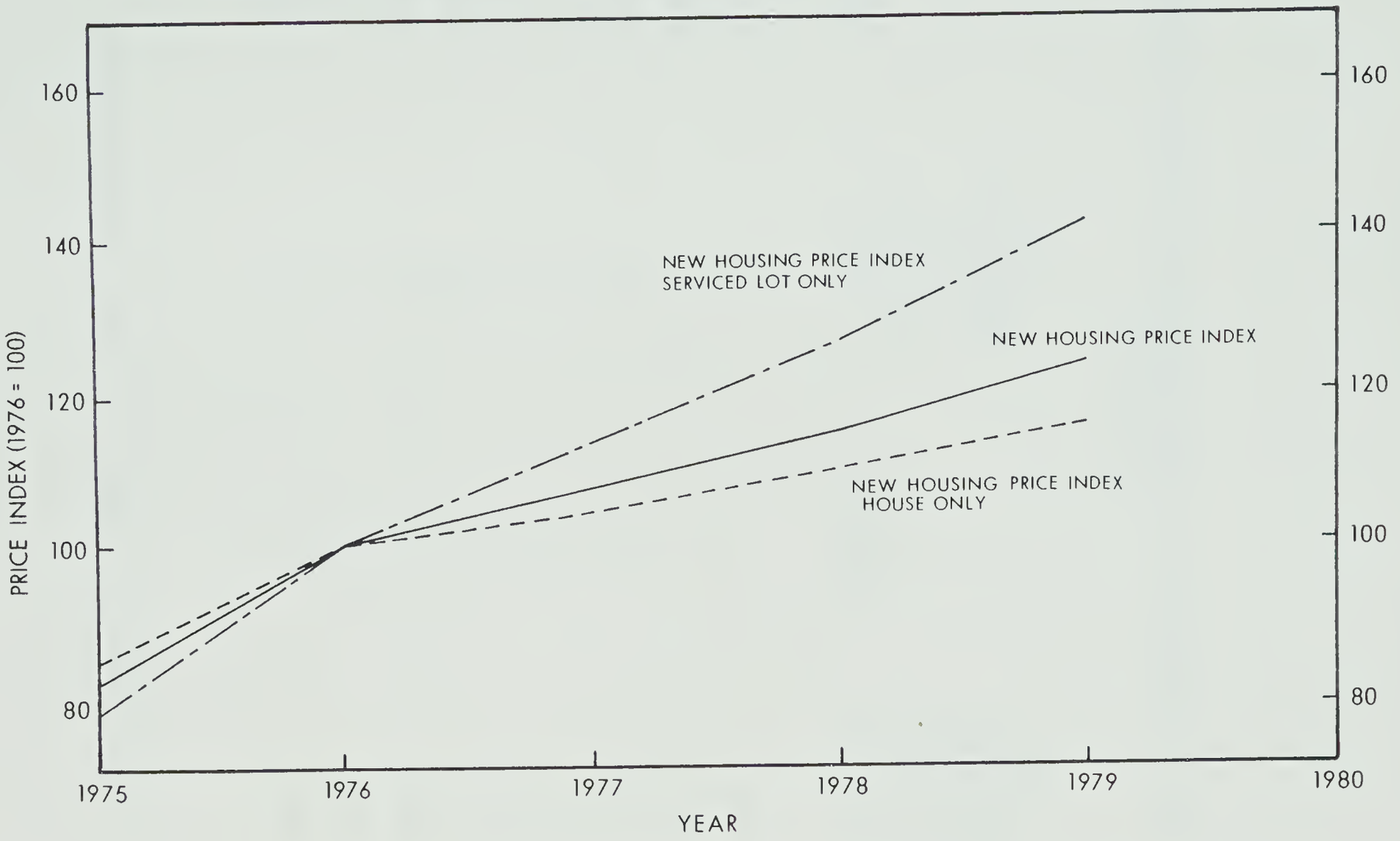
[2]It is only since 1975 that Statistics Canada has separated the new housing price index into 'serviced lots only' and 'house only' price indexes.

FIGURE 13

NEW HOUSING PRICE INDEXES – EDMONTON



Source: Statistics Canada, Consumer Prices and Price Indexes.

TABLE 6

AVERAGE ESTIMATED SERVICING COSTS OF RESIDENTIAL LOTS IN EDMONTON

Year	Mean Estimated Cost Per Front Foot Of Residential Lots	Per Cent Increase	Mean Estimated Cost Of Servicing A Residential Lot (55'X120')
1971	78		4290
1972	78	0	4290
1973	100	28.2	5500
1974	135	73.1	7425
1975	150	92.3	8250
1976	185	137.2	10175
1977	190	143.6	10450
1978	210	169.2	11550
1979	230	194.9	12650

Source: George Walker of Walker, Newby and Associates.

Edmonton, by decreasing land prices, in general.

B. Supply and Demand for Land and Housing

It was shown in Chapter 2 that land banking for the price objective would be of no use in a competitive market if excess demand rather than supply restrictions was the cause of escalating prices. The existence of a land development industry exercising monopoly and oligopoly powers was seen as the only justification for a land banking program which aimed at reducing housing prices, in general. Even then, it was hypothesized, certain conditions would first have to be met if a land bank project was to be a success (McFadyen, 1978).

The following section will examine the supply-demand relationship of housing and attempt to evaluate whether the attainment of McFadyen's four conditions would have significantly changed the success of the Mill Woods project. The basic question to be answered is this: were rising land and housing prices due to supply restrictions or to excess demand?

The demand for housing, and thus for land, in Edmonton, increased dramatically during the 1970s. Several interrelated factors were responsible:

a. an increase in migration into the Edmonton area;

b. an increase in household formation;

c. high rates of inflation;

d. low interest rates;

e. stock market instability; and

f. rising household incomes.

Alberta's energy-related economic boom has resulted in a net migration of both Canadians and non-Canadians into the province. Consistently lower rates of unemployment in Alberta relative to the rest of Canada have attracted individuals seeking to take advantage of the prosperity (Table 7). At the same time, from 1971-1976, the number of families in Alberta increased by 18 per cent (Statistics Canada, 1978). Two reasons account for this. First, the baby boom of the 1940's and 1950's caused a young family boom of the 1970's (Greenspan, 1978A). Second, since Alberta experienced an influx of migrants, and migrants are predominantly young adults in the family formation stage of the life cycle, they have added to the proportion of the population in that group.[3] The effect of these increases has been a rise in single family housing demand throughout most of Alberta, and thus, Edmonton.[4]

Demand for single family housing, in Edmonton, was also affected by population increases. From 1970 to 1979, the net migration into the city coupled with the rate of natural increase caused the population to increase by 61,609 (Table

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[3]Historically in Canada, this has been the case although at times there has been a greater influx of males than females (Kalbach and McVey, 1971).

[4]Much has been written about demographic characteristics and the demand for housing types. The popular theory is that households with children form the majority of the single family ownership market (Smith, 1974; Pennance, et al., 1978; Steele, 1979). Therefore, an increase in that segment of the population will result in an increase in the demand for single family housing.

TABLE 7

UNEMPLOYMENT RATES - 1971 TO 1979

Year	Canada	Alberta
1970	5.7	5.1
1971	6.2	5.7
1972	6.2	5.6
1973	5.5	5.3
1974	5.3	3.5
1975	6.9	4.1
1976	7.1	4.0
1977	8.1	4.5
1978	8.4	4.7
1979	7.5	3.9

Source: Statistics Canada; Historical Labour Force Statistics, 1979.

TABLE 8

POPULATION INCREASE - CITY OF EDMONTON

Year	Population	Increase
1970	429,750	
1971	436,264	6514
1972	441,530	5266
1973	442,365	835
1974	445,691	3326
1975	451,635	5944
1976	461,559	9924
1977	471,474	9915
1978	478,066	6592
1979	491,359	13293
Total		61609

Source: Civic Census, City of Edmonton.

8).

Population pressure has not been the only factor affecting demand for single family housing. The financial conditions of the 1970s have greatly contributed to rising demand. With high inflation rates, the prospect of low returns on stock market investments, declining interest rates relative to inflation and rising real family income (Tables 9 and 10), land and housing became a popular form of investment. Single family housing, during the 1970s, was no longer considered solely as shelter but rather as a tangible investment, a hedge against inflation. McFadyen and Hobart, commenting on the relationship between inflation and home ownership, state that "it is only capital gains which can justify the purchase of owner-occupancy type housing when it is available at market rents much below the real resource costs of ownership" (McFadyen and Hobart, 1978, p.175). The authors of the Greenspan Report arrived at similar conclusions for Canada, during 1972 to 1975. "An explosion in real income, high general inflation, the sharp decline of returns to alternative assets on the stock market, more mortgage money than ever before and at cheaper real rate, all combined at once powerfully to stimulate the demand for housing and land on top of the stimulation already provided by smaller downpayment requirements, exemption from capital gains tax and larger numbers of young households. These factors caused homeowners and potential buyers to believe that future prices would continue to increase at then

TABLE 9

SELECTED INTEREST RATES FOR CANADA - 1971 TO 1979

Year	Mortgage Lending Rate	NHA Mortgages	Chartered Banks Lending Rates	Other Bond Yield Averages
1971	100.0	100.0	100.0	100.0
1972	97.7	99.0	92.6	101.2
1973	101.7	104.0	118.1	104.1
1974	119.2	120.5	165.9	123.4
1975	121.2	123.6	145.2	126.7
1976	124.9	129.6	154.9	125.9
1977	109.9	114.6	131.2	118.7
1978	112.3	113.8	149.5	123.0
1979	127.0	126.1	199.2	133.7

Source: Statistics Canada, Consumer Prices and Price Indexes.

TABLE 10

STOCK MARKET PERFORMANCE AND AVERAGE FAMILY INCOMES
CANADA

Year	Industrials	TSE High	TSE Low	Average Family Incomes
1971	100.0	1036.09	879.80	9222
1972	118.8	1226.58	1004.60	9906
1973	134.1	1319.26	1122.34	10338
1974	111.6	1276.81	821.10	11953
1975	104.2	1081.96	862.74	11825
1976	108.5	1106.17	920.15	12457
1977	97.2	1068.53	957.58	11979
1978	104.6	1336.34	996.88	12532
1979		1813.48	1310.31	

Family incomes adjusted for inflation.

Source: Statistics Canada, Family Incomes; Statistics Canada, Industry Price Indexes; and Toronto Stock Exchange (TSE) Review - January 1980.

current rates .... People stopped thinking of housing primarily as 'shelter' and started thinking of it more as 'investment'" (Greenspan, 1978A, p.21). This is true of the entire 1970s. Price had little stabilizing effect on demand because of people's expectations of future land and housing prices.

While, throughout Canada, demand for single family housing was escalating mainly because of the financial conditions of the time, in Alberta and Edmonton the problem was compounded by population pressure. The result has been that Edmonton has one of the highest rates of housing price increases in the nation (Statistics Canada, Construction Price Statistics, 1971-1980). And as demand has been increasing, so has supply. From October 31, 1971 to December 31, 1978, 24,441 lots were added to the Edmonton lot supply (Table 11), with an additional 4,726 scheduled for 1979.[5] At the same time, single family housing starts from 1971 to 1975 totalled 10,518, with an additional 13,166 starts in the following four years, 1976 to 1979 (Table 12). It appears however, that this construction activity has failed to keep up with the demand. With the number of serviced lots and dwelling starts reaching all time highs, little evidence can be found to support a supply restriction theory. In fact, with respect to the single family lot development, it appears that, contrary to claims of a trend towards

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[5]The latter figure was derived from servicing agreements provided by the Land Development Coordination Branch, City of Edmonton. These lots may not necessarily be serviced in the same year as the servicing agreement.

TABLE 11

SERVICED LOTS ADDED TO MILL WOODS AND EDMONTON
LOT SUPPLY SINCE OCTOBER 31, 1971

Date	Serviced Lots Mill Woods	Serviced Lots City	% Mill Woods/ City
Oct. 31, 1971			
Apr. 30, 1972	25	549	4.6
Oct. 31, 1972	236	1146	20.6
Oct. 31, 1973	717	2819	25.4
Dec. 31, 1974	1842	4700	39.2
Dec. 31, 1975	3007	8224	36.6
Dec. 31, 1976	3588	10943	32.8
Dec. 31, 1977	4648	13882	33.5
Dec. 31, 1978	6694	17717	37.8

Source: Status of Residential Land, City of Edmonton.

TABLE 12

SINGLE DETACHED HOUSING STARTS - EDMONTON

Year	Starts
1971	1670
1972	1356
1973	2047
1974	2009
1975	3436
1976	3286
1977	2725
1978	4430
1979	2725

Source: Canada Mortgage and Housing Corporation, Prairie Region Housing Statistics.

oligopolistic market structure (Cook, 1977), industry concentration was far greater in 1973 than in 1979 (Tables 13 to 19). Though, throughout this period, several firms amalgamated,[6] the percentage of lots produced by the four largest firms has decreased, in general, since 1973. While some economists may argue that the degree of concentration in the Edmonton lot development industry remains at a high enough level to constitute market power, there are those who would argue the opposite. The problem of clearly identifying whether or not the land development industry, in Edmonton, is oligopolistic in nature lies in the fact that the line between a "competitive" industry and an "oligopolistic" industry is not easily distinguished. Scherer, an industrial organization economist, contends that "when the leading four firms control 40 per cent or more of the total market, it is fair to assume that oligopoly is beginning to rear its head" (Scherer, 1970, p.60). On the other hand, Bain views any attempt at establishing a classification system that distinguishes between oligopolistic and competitive industries as being clearly impractical and generally meaningless. In discussing one such prominent classification which labels an industry as oligopolistic if the four largest firms control more than 50 per cent of industry output, he states that "although the 50 per cent line ... is

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[6]For example, since 1973, Genstar has acquired, either directly or indirectly, Western Realty, Lamb Holdings, Abbey Glenn, B.A.C.M., and partial ownership in the Alberta Land Development Company (Sources include Who Owns Whom, 1973, 1974, 1975/76, 1976/77, 1979/80, and Canadian Newspaper Services International Limited, 1979).

TABLE 13

DEVELOPERS OF SINGLE FAMILY LOTS IN EDMONTON
1973

Developer	No. of Lots	% of Total	Cumulative Percentage
B.A.C.M. and Lamb	317	20.8	20.8
B.A.C.M.	283	18.6	39.4
Carma	268	17.6	57.0
Lamb	237	15.6	72.6
Gold Bar	188	12.4	85.0
Alldritt	131	8.7	93.7
Western Realty[1]	97	6.3	100.0
Total	1521	100.0	

[1] Western Realty is the parent company of Lamb Holdings (Who Owns Whom, 1973).

Source: Servicing Agreements, Land Development Coordination Branch, City of Edmonton.

TABLE 14

DEVELOPERS OF SINGLE FAMILY LOTS IN EDMONTON
1974

Developer	No. of Lots	% of Total	Cumulative Percentage
B.A.C.M.	591	20.7	20.7
Abbey Glenn	394	13.8	34.4
Integrated and Belvedere	348	12.2	46.7
Carma	321	11.2	57.9
Alldritt	274	9.6	67.5
Gold Bar	262	9.1	76.6
Riviera Hotel	222	7.8	84.4
Forest Glenn	160	5.6	90.0
Meza & Mijon	149	5.2	95.2
Nu-West[1]	138	4.8	100.0
Total	2859	100.0	

[1] Nu-West is the parent company of Carma (Who Owns Whom, 1974).

Source: Servicing Agreements, Land Development Coordination Branch, City of Edmonton.

TABLE 15

DEVELOPERS OF SINGLE FAMILY LOTS IN EDMONTON
1975

Developer	No. of Lots	% of Total	Cumulative Percentage
B.A.C.M.	448	18.0	18.0
Alldritt, Value and Peers	391	15.7	33.7
Carma	388	15.6	49.3
Belvedere, Abbey Glenn, Laxford and Integrated	383	15.4	64.7
Lamb	329	13.2	77.9
Forest Glenn	145	5.8	83.7
Wimpey Western	132	5.3	89.0
Green Glenn	114	4.6	93.6
B.A.C.M., Meza and Mijon	100	4.0	97.6
Abbey Glenn[1]	61	2.4	100.0
Total	2491	100.0	

[1] Abbey Glenn is the parent company of Lamb Holdings (Who Owns Whom, 1975/76).

Source: Servicing Agreements, Land Development Coordination Branch, City of Edmonton.

TABLE 16

DEVELOPERS OF SINGLE FAMILY LOTS IN EDMONTON
1976

Developer	No. of Lots	% of Total	Cumulative Percentage
B.A.C.M.	440	17.1	17.1
Carma and Abbey Glenn	328	12.7	29.8
Wimpey Western	300	11.7	41.5
Shell Canada	270	10.5	52.0
Costain	235	9.1	61.1
Integrated and B.A.C.M.	210	8.2	69.3
Green Glenn	189	7.3	76.6
Qualico	179	7.0	83.6
Nu-West	124	4.8	88.4
Domad	101	3.9	92.3
Benson and Equinox	96	3.7	96.0
Carma	83	3.2	99.2
Others	20	0.8	100.0
Total	2721	100.0	

Source: Servicing Agreements, Land Development Coordination Branch, City of Edmonton.

TABLE 17

DEVELOPERS OF SINGLE FAMILY LOTS IN EDMONTON
1977

Developer	No. of Lots	% of Total	Cumulative Percentage
Carma and Abbey Glenn	495	24.9	24.9
Gold Bar	271	13.7	38.6
Forest Glenn	204	10.3	48.9
B.A.C.M.[1]	203	10.2	59.1
L'Association Canadienne Francais de L'Alberta	168	8.5	67.6
Qualico	92	4.6	72.2
Triple Five	80	4.0	76.2
Abbey Glenn, Green Glenn and Carma	75	3.8	80.0
Alldritt	53	2.6	82.6
Podloznuik	50	2.5	85.1
Others	294	14.9	100.0
Total	1985	100.0	

[1]B.A.C.M.'s parent company is Genstar (Who Owns Whom, 1976/77. Genstar also acquired Abbey Glenn in 1976 (Financial Times, July 19, 1976).

Source: Servicing Agreements, Land Development Coordination Branch, City of Edmonton.

TABLE 18

DEVELOPERS OF SINGLE FAMILY LOTS IN EDMONTON
1978

Developer	No. of Lots	% of Total	Cumulative Percentage
Genstar	555	20.2	20.2
Carma	362	13.2	33.4
Carma and Qualico	336	12.3	45.7
Qualico	330	12.0	57.7
Beaumaris	271	9.9	67.6
Multiple Ownership	221	8.1	75.7
Sobolewski	115	4.2	79.9
Alldritt	98	3.6	83.5
Kowl Holdings	90	3.3	86.8
Grosvenor Imperial	79	2.9	89.7
Triple Five and Others	78	2.8	92.5
Costain	70	2.6	95.1
Triple Five	66	2.4	97.5
Others	71	2.5	100.0
Total	2742	100.0	

Source: Servicing Agreements, Land Development Coordination Branch, City of Edmonton.

TABLE 19

DEVELOPERS OF SINGLE FAMILY LOTS IN EDMONTON
1979

Developer	No. of Lots	% of Total	Cumulative Percentage
Nu-West and Wimpey	828	23.3	23.3
Consor and others	277	7.8	31.1
Belvedere and Integrated	276	7.8	38.9
Forest Glenn	217	6.1	45.0
Genstar	213	6.0	51.0
Alberta Land Development Company[1] and Others	211	6.0	57.0
Integrated	210	5.9	62.9
Triple Five	207	5.9	68.8
Abbey Glenn, Green Glenn, Greenway and Carma	202	5.7	74.5
Abbey Glenn and Melcor	192	5.4	79.9
Alldritt	161	4.5	84.4
Homestead	161	4.5	88.9
Letourneau and Alldritt	160	4.5	93.4
Wimpey Western	143	4.0	97.4
Birkholz	91	2.6	100.0
Other	1		
Total	3550	100.0	

[1] The Alberta Land Development Company is partially owned by Genstar (Canadian Newspaper Services International Limited, 1979).

Source: Servicing Agreements, Land Development Coordination Branch, City of Edmonton.

not entirely implausible, it seems to have been chosen mainly because 50 lies halfway between zero and 100. The classification has no clear merit in distinguishing monopolistic from competitive pricing tendencies" (Bain, 1968, p.116-117). Greenspan (1978B, p.61) does little to clarify the issue, pointing out that "while industrial organization economists do not like to be pinned down to a general rule, a typical criterion is that the top four sellers must control 60% (some say 50% and some say 70%) of a market" for significant market power to exist.

Due to the lack of agreement on the subject, it is difficult to determine from the concentration ratios (cumulative percentages) presented in Tables 13 to 19 whether or not the Edmonton lot development industry is oligopolistic. At best, all that can be concluded from the data is that there appears to be a trend towards decreased concentration in the industry from 1973 to 1979. And this, in itself, may indicate a movement towards greater competition in the land development industry.

On the other hand, while industrial organization economists may be unable to agree on the degree of industry concentration necessary for an oligopoly to exist, they are in agreement that concentration is but one of two conditions necessary for industry to have significant market power. The second condition is barriers to entry - some source of advantage to established firms over potential entrant firms. In the case of the land development industry, barriers to

entry are generally discussed in terms of an absolute cost advantage, where production costs may be lower for an established firm, thus preventing potential entrants from entering the market.[7] "Without it [barriers to entry], even a highly concentrated industry cannot exercise market power since any attempt to raise prices above competitive levels will cause new firms to enter the industry" (Greenspan, 1978B, p.61).

With respect to Edmonton, although several firms are no longer active paticipants in lot development, others have moved in to more than compensate for their departure (Tables 13 to 19). The substantial increase in firms involved in the lot development industry, from 1973 to 1979, is an indication that barriers to entry are not a major force in the industry. It seems clear, therefore, that competitive conditions are present in the Edmonton lot development industry. This is not to say that there are no supply-related problems. But, these problems are minor and do not provide a full explanation of the rapid increases in housing prices.[8] It is the nature of the land and housing

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[7] Two other types of barriers to entry are discussed in the literature. They are product differentiation advantages of established over potential entrant firms, and advantages of established over potential entrant firms due to economies of scale. For a review of sources of barriers to entry, see Bain (1968, p.255-269).

[8] The subdivision approval process has often been cited as a constraint on supply. According to Derkowski (1975), subdivision approval in Edmonton, takes a minimum of 6 months. The Alberta Land Use Forum (1974) estimate ranges from 2 to 4 years assuming no appeals, while Cook (1977) estimates that a 2 year increase in the approval process will add between 700 and 900 dollars to the price of a lot.

markets, and in particular the stock-flow relationship, coupled with extreme demand pressures, which is the primary reason for the high cost of housing in Edmonton. The Mill Woods project was doomed to fail in its price objective because it could not increase the supply of lots so as to meet demand. "No feasible amount of new supply on the fringes of our urban areas could have prevented the extreme increase in existing house prices, for no feasible supply system devised by either man or miracle could have satisfied our great expectations" (Greenspan, 1978A, p.22). In the early stages of the Mill Woods project, the reality of this statement became apparent to civic officials. Labor shortages meant that some projects had to be delayed. For example, paving to be done in Satoo during May 1975, had to be delayed until September (Edmonton Journal, June 24, 1975). Even though Mill Woods started producing lots far above the rate that was originally planned, demand exceeded supply, and housing prices continued to rise.

C. Mill Woods Marketing and Pricing Strategies

The preceding discussion in this chapter has shown that the Mill Woods land banking project was unsuccessful in reducing housing prices throughout Edmonton by decreasing land prices in general. As well, it was found that the nature of the land and housing markets (stock-flow relationship), combined with the continuing high level of demand for housing, rather than restrictions in its supply,

was to blame for Edmonton's rapidly rising housing prices. It seems clear, therefore, that satisfying McFadyen's four conditions was irrelevant to the success of Mill Woods in reducing housing prices. However, it is necessary to examine the policy conditions under which the Mill Woods project was administered to assess the degree to which the economic requirements were designed into marketing and pricing policies. The following section, therefore, will attempt to determine the extent to which the Mill Woods land bank met McFadyen's four conditions.

Restated from chapter 2, these conditions are:

1. The land bank is to be operated on a long run break-even basis.
2. Land bank operations are integrated with land use planning controls.
3. Land bank lot production is sufficiently large to dominate the market for residential lots.
4. The land bank is able to acquire its initial raw land holdings and to replenish its holdings at existing use value (McFadyen, 1978, p.68).

Of the four conditions, the second is the only one which the Mill Woods project has clearly met. A provincial "planning framework that mandates comprehensive and coordinated planning and development at the regional and municipal levels of government ... means that the municipalities have some of the basic administrative machinery for selecting growth areas, and for coordinating

plans, servicing, and major public capital investments" (Roberts, 1977, p.171). The publication of the Mill Woods Development Concept Report (1971) and the Mill Woods Composition Plan has ensured the integration of the Mill Woods land banking operation with land use planning. In addition, an entire department (Mill Woods Project) was created within the City of Edmonton to plan and oversee the development of Mill Woods.[9]

It is apparent, though, that condition three was not achieved. Although city-owned land in Mill Woods provided 33 per cent of the single family serviced lots in Edmonton, from 1973 to 1979 (Table 20), Mill Woods did not dominate the market, if domination is defined as the ability to affect price through the control of supply.[10] Moreover, the 33 per cent figure is misleading, because lots from the land bank were used to meet the majority of the city's low income housing demand, so reducing the proportion of land bank lots that could be used to create an oversupply throughout the city.

The attainment of the two remaining conditions (one and four) seemed to be quite feasible in the initial stages of

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[9]Although, in 1974, the Mill Woods department became part of the Real Estate and Housing Department, the basic responsibilites for the planning of Mill Woods remained the same (Telephone conversation with Jim McLaughlin, Real Estate and Housing Department, City of Edmonton, September 9, 1980).

[10]Clawson suggests that a public agency "should seek to have 60 per cent or more of the land in the general area within which it operates ... to enable the agency to have a major, if not dominating, role in suburban development" (Clawson, 1971, p.359).

TABLE 20

SINGLE FAMILY SERVICED LOT PRODUCTION - 1973 TO 1979

Year	Mill Woods*	Private	Total	% Mill Woods/ Total
1973	463	1521	1984	23.3
1974	1062	2859	3921	27.1
1975	1147	2491	3638	31.5
1976	2060	2721	4781	43.1
1977	1496	1985	3481	43.0
1978	1434	2742	4176	34.3
1979	1176	3550	4726	24.9
Total	8922	17869	26791	33.3

* Only city-owned lots included.

Source: Servicing Agreements, Land Development Coordination Branch, City of Edmonton.

the Mill Woods project. The secret acquisition of agriculturally zoned land outside the city limits permitted the 4500 acres within the Mill Woods site to be purchased at existing use value. It appears, however, that the City has failed to initiate a policy of immediately replenishing its holdings. Unless new tracts of land are acquired to replace those that have been marketed, land banking in Edmonton will most likely terminate with the completion of the Mill Woods Project.[11] Even if a new land assembly project is established in the near future, it would be unsound from an economic standpoint. The quantity of land that the capital collected from the sale of Mill Woods lots could purchase would be less than if the land supply had been immediately replenished. To illustrate this point assume that the price of land has doubled in a five year period, while servicing costs have remained constant. Thus, the revenue from the sale of land in the first year will buy half as much land in the fifth year.

Since a continuing land banking program has not been undertaken thus far, it appears that civic officials in Edmonton are prepared to let the program run out. If this is the case, it is irrelevant whether condition one has been met or not, because the purpose of Mill Woods can no longer be the same as it was at the start of the project (Chapter 1). Indeed, the lack of clearly defined goals, objectives

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[11]There have been rumors of a new land banking program north-east of Edmonton, but nothing has developed from them yet (Edmonton Journal, December 22, 1979).

and policy guidelines appears to have been a major factor in the acceptance of land pricing practices that differ from those that are needed to operate a land banking project on a long-run, break-even basis. By the administration's own admission, "the definition of policies and stated objectives of the Mill Woods Project were somewhat unclear and thus many interpretations were possible". As a result, "without concise objectives it became very difficult to maintain a consistent marketing strategy, thereby constraining attempts at achieving certain objectives" (Report to Edmonton City Council on Mill Woods prepared by Real Estate and Housing, Dec. 13, 1978, p.16). Marketing policy, therefore, was determined by what the civic authorities perceived the objectives to be, whether for public land banks in general or for Mill Woods in particular. The outcome was a change in marketing strategy which reflected a shift in emphasis from the project's primary economic goal to its secondary social goal. Beginning in 1976, city council adopted sales targets which significantly increased the number of low-income housing units to be built in the Mill Woods area (Table 21). A substantial number of lots was now being set aside for individuals qualifying under one of the following subsidized programs: Starter Home Ownership, Direct Lending Program, and Housing Co-ops.

Though the new marketing strategy was an indication that the emphasis of the project was now of a more social nature (providing low-income housing), it was also evidence

TABLE 21

MILL WOODS LAND MARKETING POLICY

1972	70% Private Individuals 30% Housebuilders
1973	50% Private Individuals 50% Housebuilders
1974	40% Private Individuals 60% Housebuilders
1975	69% Private Individuals 31% Housebuilders
1976	80% Private Individuals and Housebuilders 20% Housing Co-op
1977	50% Private Individuals and Housebuilders 34% Housing Co-op and Subsidy Programs 6% Edmonton Housing Association
1978	51% Private Individuals and Housebuilders 49% Housing Co-op and Subsidy Programs
1979	50% Private Individuals and Housebuilders 50% Housing Co-op and Subsidy Programs

Source: Real Estate and Housing, City of Edmonton.

that the social objectives had been misinterpreted. Because the amount of low-income housing built in Mill Woods was disproportionate relative to the city as a whole, the officials in the City's Department of Real Estate and Housing were prompted to caution against using city-owned land to meet this type of housing demand. "While low-cost housing is a real need in Edmonton at this time", they reported in 1978, "overloading one portion of the city with low-income households upsets the balance necessary for healthy community functioning. In certain subdivisions of Mill Woods all residents had to qualify under Government sponsored housing programs, and as a result all have a certain level of income and, in many cases, this did not result in a homogeneous socio-economic resident mix" (Report to Edmonton City Council on Mill Woods prepared by Real Estate and Housing, Dec. 13, 1978, p.20-21). By using publicly owned land in Mill Woods to meet Edmonton's low income housing demand, the city not only failed to "encourage a composite and compatible population of a wide range of racial origins, income characteristics, and personal background" (Mill Woods Development Concept Report, 1971, not paged) but employed a marketing technique counter to that necessary to "control land value escalation so that fewer residents [would] be forced to rely on some form of subsidized housing" (Mill Woods Development Concept Report, 1971, not paged). If, as it appears, the initial intention of the project was to force down lot prices throughout the

city by creating an oversupply of relatively inexpensive lots, allocating a major portion of those lots to the needs of low income households must have diminished the project's potential for attaining the price objective. Moreover, the marketing strategy initiated by civic officials, in 1976, clearly increased rather than decreased the amount of subsidized housing (Table 21), which may indicate that civic officials were unfamiliar with the goals and objectives of the Mill Woods program as expressed in the Mill Woods Development Concept Report (1971).

In addition, since a land pricing policy was to be established by combining the prime objective of the project with stated policy guidelines, pricing strategy (Table 22) varied according to the way the objectives and guidelines were interpreted by civic and provincial officials. Throughout the early stages of the program all lots were sold at below market value, until 1976, when two pricing policies went into effect (Table 22). Lots which were set aside for individuals qualifying under a government subsidy program sold at below market value with the remainder being sold to private individuals and builders at the current 'market rate',[12]

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[12]Though market value may well have been $2.20 per square foot on September 10, 1976, it appears that civic officials failed to update this figure, since as late as April 25, 1978, 'market value' in Mill Woods remained the same as in September, 1976. From evidence presented in Table 4 and Figures 11 and 13, lot prices on an average, in Edmonton, continued to rise dramatically during this period, indicating that civic officials were unable and/or unwilling to determine the current market value of lots in the Mill

TABLE 22

MILL WOODS SINGLE FAMILY LOT PRICING POLICY

Date	Price Per Square Foot	Percent Of Market Value
1971 November 22	$0.37	80
1973 June 25	$0.38	*
1974 July 10	$0.50	*
1976[1] September 10	$0.55	25
1977 March 8	$0.60	27
1977 May 6	$0.65	29
1978 April 25	$1.10	50

* Data unavailable.

[1] From 1976 onwards a portion of lots were sold at 'market value' ($2.20 per square foot).

Sources: Real Estate and Housing, City of Edmonton and Edmonton Journal, November 15, 1973 and May 6, 1977.

first preference was given to private individuals, with any surplus lots going to builders.[13] The lack of clearly defined objectives and policy statements, however, has presented problems when attempting to arrive at policy decisions for subsidized lots. In 1978, for example, city council was divided over a new pricing strategy. Alderman Olsen, seeking a policy that would have increased the prices of subsidized lots from 29 per cent of the market value to 80 per cent, justified the increase by stating that "it's time we got into the land banking business", adding that the City would soon lack the funds to buy more land. This statement closely reflects the project's original purpose. But, Alderman Hayter countered by noting that at 29 per cent of market value the city would "recover every cent it has invested in the project and [would], in the end, realize a healthy profit". He went on to say that selling at 80 per

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[12](cont'd)Woods land bank. 'Market value' as the term is referred to with respect to Mill Woods appears, therefore, to be an arbitrarily set figure.

[13]Mill Woods marketing strategy has guaranteed that a portion of available lots be sold to private individuals. In 1973 city council rejected a policy recommendation by project director Phil Ellwood and the city commissioners that would have resulted in lots being sold strictly to builders. It seems that the recommendation was in response to development problems experienced when individuals failed to construct homes on their lots, causing the City to reclaim them. Council justified its decision on the grounds that making lots available to individuals would 'keep prices down and keep out speculators', whereas it was argued that selling to builders would not necessarily result in the savings being passed on to home buyers. It is not clear why they arrived at this conclusion since builders were required to submit a sworn affidavit declaring the sale price of each home and stating the costs of land improvements and the value of the house. Sources include the Edmonton Journal, January 15, 1972; April 21, 1973; and November 15, 1973.

cent of market value would "put lots out of reach of the people we're trying to reach in this housing program" (Edmonton Journal, April 26, 1976). It appears that he had placed considerable emphasis on the social aspect of the project, which, again, was not the same as the social goal presented in the Mill Woods Development Concept Report (1971). Under the policy finally decided upon, the price of a subsidized lot was set at 50 per cent of 'market value' ($1.10 per square foot). This was an obvious compromise between the 80 per cent ($1.75 per square foot) which Alderman Olsen was seeking, and the 29 per cent ($0.65 per square foot) which a number of council members wanted to retain.[14]

On examining the Mill Woods land pricing policy guidelines (see Figure 8, page 22) it is understandable why civic authorites may have had difficulties in arriving at a land pricing decision. Alderman Olsen, for example, was justified in seeking an increase in subsidized lot prices if he based his decision on the guideline that would provide a pricing policy to guarantee "the generation of funds for other areas" (Mill Woods Development Concept Report, 1971, not paged). Likewise, Alderman Hayter's argument for maintaining the current price was well-founded in the policy guideline that would establish a pricing strategy according to "the economic capabilities of the home buyers and tenant"

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[14]Six council members voted against the $1.10 per square foot price proposed by Alderman Gene Dub. They were Mayor Purves and Aldermen Campbell, Hayter, Hewes, Kennedy and Wickman (Edmonton Journal, April 26, 1978).

(Mill Woods Development Concept Report, 1971, not paged).

Not only were the policy guidelines often contradictory but they were also stated in unclear and vague terms which allows several interpretations from phrases such as 'funds for other areas' and 'economic capabilities'. The end result was marketing and pricing strategies which reflected public authorites' interpretations of what the primary purpose of Mill Woods was to be, which were not necessarily the same as the original intentions discussed in Chapter 1, Section C. For the most part, the strategies chosen by civic officials responsible for implementing the program, indicated that the original price objective was forgotten in favour of a new social objective; an objective which is not discussed in the land banking literature. It appears, therefore, that as far as the majority of these officials were concerned, the purpose of land banking was to satisfy the need for social housing.

Disagreement on pricing policy was not limited solely to civic officials but extended into the provincial government. During the summer of 1976, provincial authorities expressed dissatisfaction at a proposed lot pricing policy which was to include a second mortgage to be forgiven at five per cent annually for twenty years, to cover the difference between the subsidized rate ($0.55 per square foot) and market value ($2.20 per square foot). If the lot was sold again before the twenty years was out, the outstanding portion of the mortgage was to be repaid to the

City of Edmonton. Provincial Housing Minister Bill Yurko opposed this scheme, charging that the City was trying "to apply a speculative tax to the home owner, who for legitimate reasons, decides to sell and turn a profit in the process". He added, "they're [the City] trying to recapture not from the major land speculator - who, to a large degree are the corporate speculators - they want to recapture it from the final home buyer which is an unbelieveable position" (Edmonton Journal, June 23, 1976). City council, however, viewed the second mortgage as a necessity in ensuring that buyers did not turn around and sell the lots for a large 'speculative' profit.[15] In the end, despite Mr. Yurko's objection, council settled on a ten year second mortgage.[16]

It is possible to draw two conclusions from the provincial-civic dispute. First, Mr. Yurko's position seems to indicate a lack of understanding of the situation. Since there is no risk in acquiring a lot at below market value and turning around and selling it at what the market will bear, using the term 'speculative tax' to describe the second mortgage scheme is incorrect because no speculation

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[15] Reschenthaler, McCormick and Garant (1976) concluded that early capitalization was taking place in Mill Woods. They compared resale rates of homes in Castle Downs, a privately developed community within Edmonton, to those in Mill Woods. Their findings showed that within one year 15 per cent of homes sampled in Mill Woods had been resold as compared to 3 per cent in Castle Downs.

[16] For more information on the provincial-civic disagreement on marketing and pricing policy see Edmonton Journal, May 6, May 10, June 9, June 23, June 24, July 2, July 7, and July 14, 1976.

is involved. Second, it appears that public authorites were unfamiliar with economic and land banking theory. The problem of early capitalization on subsidized lots should have been foreseen if the individuals involved in determining pricing strategies had had an understanding of basic economic principles.

In summary, it is apparent that the goals, objectives and policy statements which were attached to the land banking program and the Mill Woods plan gave too little guidance to the marketing and pricing strategies. Furthermore, the failure to formulate and implement policies that were well grounded in the theoretical land banking literature seems to indicate a lack of familiarity with the subject - a lack of familiarity that bred conflict amongst those who were responsible for implementing the program. It appears, therefore, that marketing and pricing strategies reflected civic and provincial officials' interpretations of what the primary purpose of the Mill Woods project was to be, which were not necessarily the same as the original intentions.

V. CHAPTER FIVE

SUMMARY AND RECOMMENDATIONS

The purpose of this chapter is to review the findings of this study and to examine the potential uses of public land banking given its apparent limitations in decreasing land and, thus, housing prices. Discussion will therefore be focused first on the price objective, and specifically on the market and economic conditions under which a public land bank can be used effectively to reduce land and housing prices. In addition, the potential use of public land banking as a way of satisfying the need for social housing will be discussed.

A. Summary

From the preceding discussion on trends in new housing costs and prices (Chapter 4 A), it was determined that the Mill Woods land banking project was unsuccessful in reducing housing prices throughout Edmonton by decreasing land prices in general. In Sections B and C of the chapter, discussion centered on the reasons for the project's failure in reducing these prices, specifically addressing the relevant question formulated in Chapter 3 A.

- Was the Mill Woods land bank unsuccessful because public authorities were unfamiliar with the theoretical constructions and economic conditions necessary for a land banking project to succeed in its price objective

and/or because it failed to meet McFadyen's four conditions?

It was found that the nature of land and housing markets (stock-flow relationship), combined with extreme demand pressures, was the primary reason for the high cost of housing in Edmonton. Although the rate of lot production in Mill Woods greatly surpassed that which had been originally planned, it could not add a sufficient number of lots to Edmonton's standing stock to meet effective demand. Furthermore, lot production throughout the rest of Edmonton increased substantially during the 1970's with several new firms entering the market, indicating that monopolistic and oligopolistic powers were not a major force in the land development industry. As a consequence, Mill Woods could not possibly have been effective in attaining its price objective, because public authorities had incorrectly identified the cause of rising land and housing prices. Since supply-related problems, due to imperfections in the market system, were not a primary factor, it is possible to conclude that the failure of the Mill Woods project to reduce housing prices throughout Edmonton can be blamed on the public authorites initially involved in the project. It was their lack of familiarity with theoretical constructions and economic conditions necessary for a land banking project to succeed in its price objective which resulted in the failure of the Mill Woods land bank to reduce prices.

As well, it was found that the lack of clearly defined

goals, objectives, and policy statements resulted in marketing and pricing strategies which were insufficient for the attainment of three of McFadyen's four conditions (one, three and four). However, since rising land and housing prices were rooted in the nature of the land and housing markets and excess demand, it is doubtful whether improvements to the poorly structured goals, objectives and policy statements, which were encountered in establishing marketing and pricing strategies, would have made any difference to the success of the Mill Woods project in reducing these prices. Given Edmonton's development circumstances, it was unrealistic to expect that the price objective could be satisfied by the Mill Woods land bank.

B. Price or Economic Objective

It appears that public land banking, as a tool for reducing metropolitan housing prices in general, can be justified only if the land supply is being restricted through the use of monopolistic or oligopolistic powers. With respect to Edmonton, little evidence was found to support such a supply restriction theory. But, if supply restrictions had been a major cause of rising land and housing prices, the potential to use a land banking project to correct these imperfections would have existed in theory. In reality, however, the ability of such a program to increase competition and reduce land prices depends on several inter-related factors. Four are particularly

important: the oligopolistic or monopolistic structure of land ownership and/or the development industry, and the amount of land controlled by development interests; the amount of public land that would be needed to force oligopolies and monopolies to compete in the land market; the availability of public funds to purchase the required land; and the type of marketing and pricing policies initiated by the public authorities for their land sales.

Without a clear understanding of these factors the ability of a land bank to attain its price objective could be seriously reduced, as the Mill Woods case study has demonstrated. The amount of land necessary to force monopolies and oligopolies to compete in the land market would depend on how firmly the artificial pricing powers are entrenched in the industry. The greater the tendency towards monopolistic control of developable land for housing purposes, the more public land would be needed to restore the industry into a competitive position. At the present state of knowledge, however, it is impossible to convert this obvious principle into a precise measure of the amount of public land that wuld be needed in any particular situation. There are too few large-scale Canadian land banking projects from which to draw the information that could provide solutions to the problem. Land banking in Canada will therefore remain, for the most part, a trial and error proposition with respect to the size of land inventories, that would be needed to make oligopolies

competitive. In addition, the availability of public funds to purchase the land may be a limiting factor to the success of a land bank in reducing land and housing prices, although, in Canada, such funding may be attained under Section 42 of the National Housing Act.

Finally, the factor which may be the most controversial issue in creating a land bank that will effectively attain its price objective is the type of marketing and pricing policy to be initiated by public authorities. First, consider a strategy of selling a high volume of lots at below market price. If the land bank has sufficient holdings to have a dominant effect in the land market, such a strategy would create an increase in supply, forcing the competing firms to lower their prices. But, if the land bank has fixed land resources, which are not being continuously renewed, private firms could decide to withhold their land from the market until the land bank's holdings have run out, returning the market to the monopolistic or oligopolistic situation which existed before the land banking project.

On the other hand, a strategy of selling a low number of lots at market value could result in a slight reduction of market price caused by the incremental supply added by the land bank. This is assuming the private firms maintain their sales volume, and that demand does not increase to mask the effects of the increased supply. Under these conditions, the private sector could react to the new supply of lots from the land bank by restricting their own volume

so as to maintain the previous market price.

To conclude, if an urban community is desirous of entering into land banking for the purpose of reducing land costs, it must, unlike Edmonton, analyze the land market to determine whether, in fact, the land ownership and/or development industry has artificially controlled price, since only then can a public land bank be justified under the price objective.[1] If a decision is made to go ahead with a land banking project, public authorities would then have to determine the amount of land to be purchased and the marketing and pricing strategies necessary for the project to be successful in reducing land and housing prices. All these decisions require the best possible understanding of the operations of the local land market, in both theory and practice.

C. Social Objective

Although, in the modern literature, land banking is generally justified under one of three objectives (price or economic, planning, and profit), civic officials involved in the Mill Woods program used the public land within the planning area to satisfy the need for social housing. They

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[1]It must also be noted that land banking is not the sole means available to combat monopoly situations in the land development and/or ownership industry. In Canada and the United States there is anticombines and antitrust legislation, respectively, to help preserve and encourage competition, though some would argue that such legislation is insufficient. For an overview of the Competition Law of Canada and the Antitrust Law of the United States, see Roberts (1980).

were returning, in effect, to the social idealism of the late 19th century, when the notion of municipal ownership of land was widely advocated. Without public assistance, it was argued, those who were powerless in the market place could never attain whatever minimum housing standard was regarded as desirable for a healthy and decent life.

The use of public land banking to provide social housing appears to be a perfectly legitimate use of the land, if the program is justified from the outset under this objective. However, since Edmonton's land bank was purchased in only one area of the city (southeast sector), because that was where land was available at agricultural value, its use to satisfy the need for social housing resulted in a disproportionate share of the city's low income housing being built in Mill Woods. If public authorities had originally undertaken a land banking project specifically with social housing in mind, they would certainly have preferred to purchase land at dispersed locations throughout Edmonton, although this would have been a substantially more expensive option than purchasing land in Mill Woods. By this means, however, civic officials would have been able to implement a social housing program according to modern planning principles, resulting in socially and economically mixed neighborhoods within which the assisted housing would be dispersed over numerous sites.

The successful attainment of the social objective, to which the emphasis of the Mill Woods land bank eventually

shifted, would again depend upon several inter-related factors, the major of which are the amount of land to be purchased, its location, and the marketing and pricing strategies to be initiated by the public authorities. The cost of implementing and maintaining such a program would depend on the type of strategy to be adopted by the public authorities.

First, consider a marketing and pricing strategy which would provide revenue for the continuing acquisition of land for social housing purposes. Such a strategy would eliminate a segment of low income households from acquiring homes in the program, because of the prices that would have to be charged to offset the continual increase in the cost of replenishing the land bank. Conversely, a strategy that would allow all low income households to afford social housing would not create the revenue necessary to replenish the public land. Either some low income households must be excluded from the program or an ever increasing element of subsidy is required.

At the same time, there remains the problem of determining the amount and location of the land to be purchased to best support the social objective of land banking. Since many of the factors which may enter into such a decision are not quantifiable, there appears to be no simple formula. Public authorities, therefore, must attempt to weigh the alternatives, such as the cost to society of maintaining a social housing program against the cost of

inadequate housing and its associated problems; and the cost of purchasing land throughout the metropolitan area so as to allow communities to develop with a socio-economic mix against the acquisition of less expensive land at inferior locations and the cost associated with the isolation of low income households. Only after public authorities have clearly established and understood all the costs of a land banking project should they proceed with its implementation. This holds good whether the basic rationale is the price objective, as it was originally in the Mill Woods case, or the social objective, which the Mill Woods land bank came to serve.

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